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9. ABSTRACT

Since 1971, the Office of Housing of AID has been conducting preinvestment surveys in countries where housing investment guaranty programs are anticipated in order to provide the background and framework for its intervention. These surveys are, in fact, increasingly sophisticated analyses of the shelter sector of each country. Each report is intended to provide the Office of Housing with the information necessary to enable it to answer three primary questions about a specific country:

- What is the country's capacity to undertake a large-scale housing program?
- What is the effective demand for housing at a given price level?
- What is the country's capacity to repay a foreign loan?

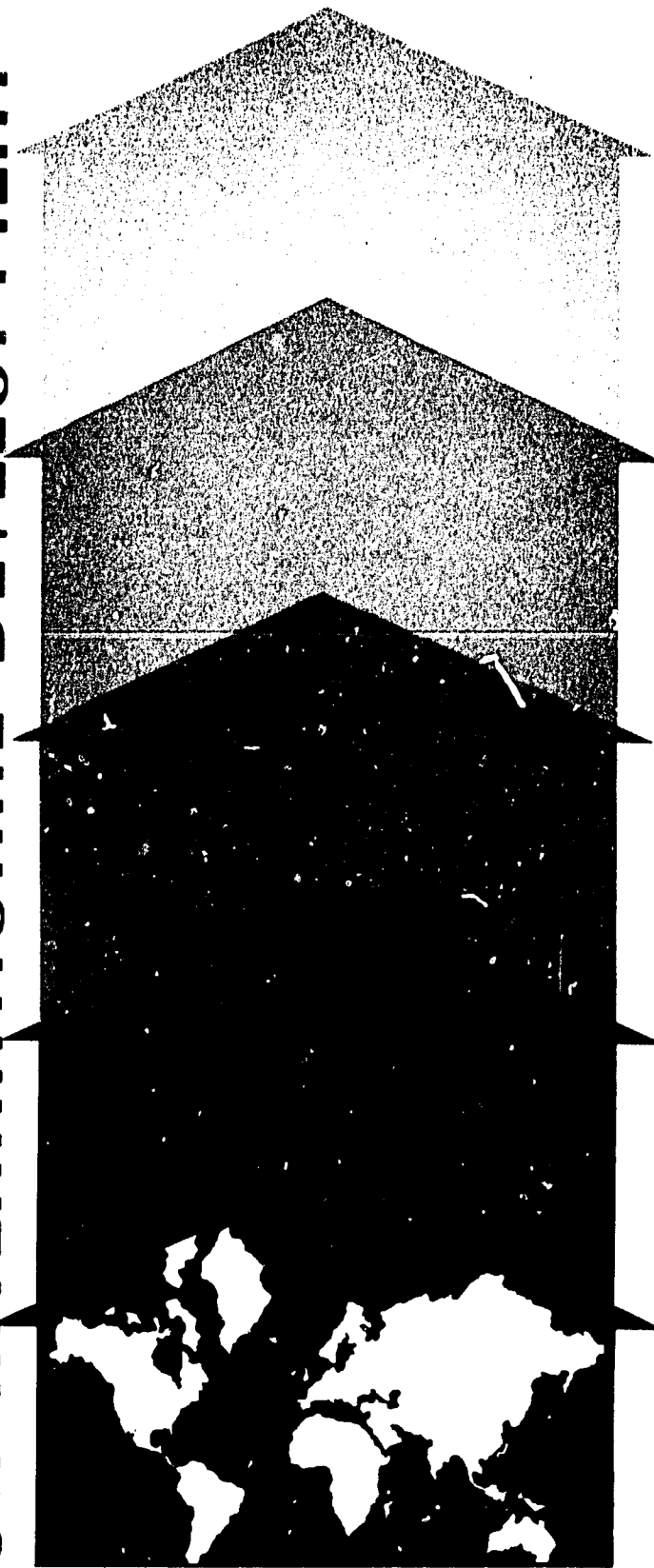
To paraphrase the introduction to the scope of work for a recent survey, its objectives are to determine the need for housing at all socio-economic levels of society, to determine the ability of each socio-economic group to pay for housing; to assess the capabilities of the Government to plan and manage large scale housing programs and projects; to analyze the impact of large scale foreign borrowing on the country's economy and its ability to repay; and to assess the ability of the country to absorb large sums of money into the shelter sector industries.

These objectives have been realized with varying degrees of success. Some of the more recent surveys, in particular, provide broad panoramas of the country housing sectors. Some of the earlier ones are more limited in scope and cover only a part of the sector.

These reports provide valuable orientation for anyone becoming involved in housing sector in one of these countries. They should also be useful for comparative studies of housing programs and policies on a regional or world-wide basis.

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SER/H REFERENCE FILE

**PRE INVESTMENT
SURVEY REPORT
HOUSING GUARANTY
PROGRAM
REPUBLIC OF
KOREA, 1971**

Volume A

PRE-INVESTMENT HOUSING SURVEY FOR

THE REPUBLIC OF KOREA

VOLUME A

(of two Volumes consisting of A & B)

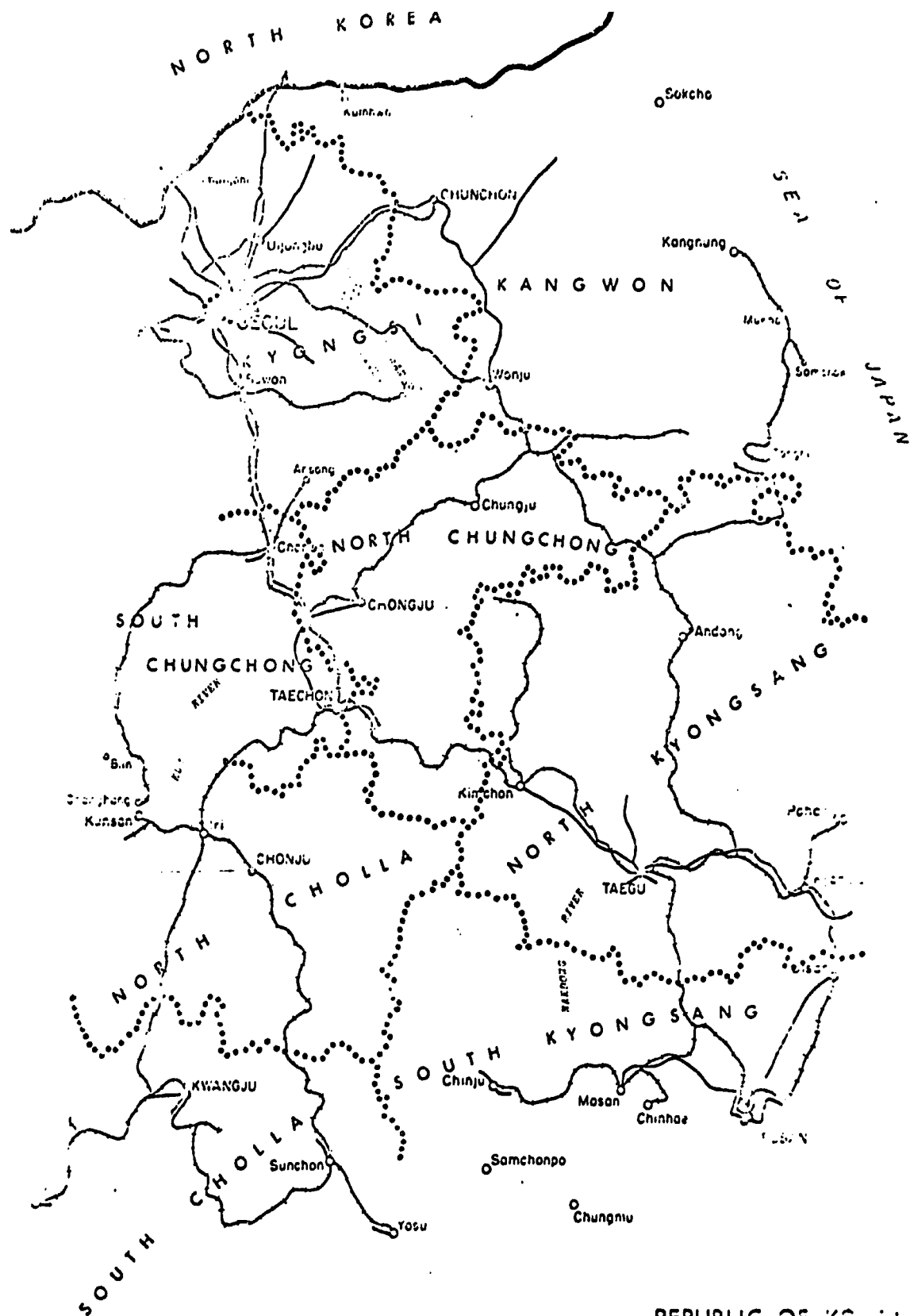
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October 14, 1971



REPUBLIC OF KOREA

- MAIN ROADS
- RAILROADS
- PROVINCIAL BOUNDARIES

0 20 40 60
Kilometers Miles

CHEJU

KOREA

PREFACE

This Pre-Investment Housing Survey of Korea was prepared at the request of the AID Office of Housing by consultants from the National League of Insured Savings Associations and the Foundation for Cooperative Housing.

Its purpose is three-fold:

1. To present a thorough survey of the housing sector in Korea, including,
 - a) a review of the local public and private institutions operating in the production and financing of housing;
 - b) an assessment of the local construction industry;and
 - c) an analysis of the best available data on the local housing market.
2. To analyse specific questions raised by the AID Mission in Seoul in connection with ongoing programs in the field of housing and housing finance.
3. Based on the above data and analyses, to make recommendations on specific programs and institutional improvements that will permit the most effective and the most efficient utilization of the Housing Guaranty resources in Korea.

The Team visited Korea from May 24 to June 16, 1971. Members of the Team included Messrs. Robert Murphy, President of Knickerbocker Federal Savings and Loan Association of New York, Carlos

Ayerbe, architect-engineer from the staff of the Foundation for Co-operative Housing; and Albert N. Votaw, regional inspector for administration, of the League Staff.

The Team was initially headed by Mr. Peter Kimm, Deputy Director of the Office of Housing, who participated in initial discussions with ROK and USOM officials and provided policy guidance for the Team.

Mr. Murphy assumed major responsibility for the analysis of the Korea Housing Bank, Mr. Ayerbe for the technical sections, and Mr. Votaw for the balance of the report and for overall editing.

The Team also wishes to express its appreciation for the assistance offered by USAID/K Director Michael H.B. Adler and Messrs. Thomas E. Olmstead, Marvin J. Winship and Rufus Long of his staff; to His Excellency Nam Duck Woo, Minister of Finance, and members of his staff; to officials from the various ROK agencies who provided valuable data; and to staff members of the East Asia Bureau and of the Office of Housing.

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I. SUMMARY OF FINDINGS AND RECOMMENDATIONS

1.0 HOUSING NEEDS

According to preliminary data from the 1970 census there were 5,860,000 families in Korea, living in 4,370,000 dwelling units. This represents a shortage of 1,492,000 units or 25% of the required amount. One of two Korean families must share its house. This situation is unlikely to improve in the near future: ROK housing construction projections for the Third Five Year Plan (1972-76) still leave a shortage of 1,341,000 units or 21% by the end of the plan.

The situation within the urban areas is much more serious. Housing deficiencies in Seoul, Pusan and Taegu (1969 data) were 51%, 56%, and 59% respectively. This means three and sometimes four families per dwelling unit in lower income areas. In Seoul 2 million persons--almost 40% of the city's population--live in 170,000 squatter units--averaging 12 persons per room, 7/8 of a square meter living space per person.

Even taking into account the less serious condition in some of the smaller cities, the overall urban housing shortage was 48%, as compared with an 11% deficiency in rural areas.

The urban housing crisis in Korea is a derivative of three main factors:

- a) Population shifts and pressures, i.e. the rural-urban migration, natural increase, and--specifically Korean--refugee pressures.
- b) The destruction of the existing stock. The Korean War caused

the loss of 600,000 units--one-fourth the available housing stock at that time; and the condition of many of the older units has deteriorated beyond repair as a result of the country's extreme weather conditions.

c) Rising expectations. Korea's impressive recent economic growth has increased not only the awareness but also the effective demand for better housing.

2.0 SPECIFIC PROGRAM PROPOSALS

2.1 General goals

To meet these great housing needs, the Government of Korea (ROK) has relied primarily on private-sector housing production. However, conditions in the Korean capital market preclude private participation in long-term housing finance. These conditions include an absence of any long-term capital, an extraordinarily high interest rate, and a universal speculation in rising land prices.

Although government-sponsored housing may have represented a relatively small percentage of housing production, it did represent an effort to meet the housing needs of lower income families. In recent years, as a result of pressures growing from insufficient budgetary support together with the basic inability of the capital market to provide long-term funds, governmental institutions have tended to shift their emphasis from lower-income, subsidized efforts towards higher-income programs that derive financing primarily from extra-budgetary sources (i.e. advance payments by purchasers.)

While a major objective of the HG Program in Korea should be to encourage greater private sector participation in middle and lower-middle income housing, the Team suggest that a major portion of the initial program be negotiated, because this can move more quickly into construction than the competitive program. Construction itself should pose no special problems: the building industry is more than adequate to the requirements of the proposed program.

The Team recognizes that housing and housing finance institutions will reflect conditions found in the capital market, and that the HG program cannot be isolated from general market trends. Nevertheless, it has attempted to incorporate in its proposals measures that it hopes will encourage stability of ownership and discourage speculative activity with respect to HG-financed units.

The Team also is convinced of the necessity of incorporating some form of maintenance of value instrumentality into Korean housing finance and savings programs.

The financing of housing for families of moderate incomes is additionally difficult because of the extremely skewed income distribution so that the costs of providing safe and sanitary housing in Seoul quickly rise beyond the means of many Koreans. A great deal remains to be done by ROK to attempt to develop more innovative approaches for lower-income housing.

The Team, therefore, recommends the following:

a) An immediate action program designed to get into production as quickly as possible the maximum number of units suitable for ownership by stable middle-income families. This program will operate within the existing institutional framework but will incorporate several demonstration features. (This immediate program is outlined in the balance of Section 2.)

- b) Long-range goals and objectives (Section 3.1)
- c) Some intermediate steps that can be taken (Section 3.2 and 3.3)

2.2 Amount and Nature of Immediate Action Program

The Team recommends a first year guaranty authorization of \$15 million, as follows:

- a) \$10 million to be negotiated with a public, non-profit sponsor.
- b) \$5 million to awarded to a private, profit-seeking sponsor or sponsors, either Korean or American-Korean joint ventures, following a public announcement soliciting competitive proposals.

Every effort should be made to get the negotiated program under construction during 1972. To this end the Team recommends that following East Asia Bureau approval in principle of the Program, TDY technical assistance be provided as appropriate to the public sponsor to assure prompt and proper submission of the proper application and documentation.

In view of the housing need and potential in Korea, the Team has no doubts but that subsequent guaranty amounts will be substantially greater. It is considered desirable that sufficient funds for future programs be authorized sufficiently in advance to permit a regular annual housing input.

2.3 General Criteria for Initial Program

- 2.3.1 Sales price ceiling: \$9,000 for condominium apartments
\$8,000 for houses

At this price a three bedroom unit can be constructed 66 M² in size, provided that the cost of land is held to reasonable proportions. This unit will offer heating and hot water, both of which are highly desirable

and unavailable in units of this price at the present time. It is hoped that the superiority of the unit, together with other controls proposed below, will reduce speculation.

2.3.2 Down payments: A minimum of one-fourth to one-third for non-property owners, although substantially higher than usual in HG programs, is recommended. This is in line with the 25% down payment required for previous programs in the East Asia Region. It represents a substantial improvement over present down payment requirements in Korea, which amount to 70% or more of the selling price. This equity should represent real savings, as contrasted with profits from land speculation.

Actually, down payments of 50% or more are consistent with market behavior, and maximum down payments may be desired by purchasers who already own property and who are selling cheaper and less adequate housing.

At the present time the majority of homes are bought for cash, and the major portion of the payment consists of the appreciation in the value of previously owned property. To the extent that the down payment is saved by non-property owners, it will represent cash savings of one sort or another, rather than speculative profits.

2.3.3 Interest Rate

The Team recommends that consideration be given to utilization of a maintenance of value mechanism in the mortgage, (see Long Range Goals and Objectives - 3.1.2.) and that the basic interest rate to the consumer be set at the rate paid the U.S. Investor plus the 1/2 of 1% AID fee.

One possible technique is mortgage adjustment. The Korea Housing Corp., makes use of an adjustment clause in its lower-income housing programs and reports that this has created administrative and public relations difficulties. The Team believes, however, that these can be overcome through more universal use of the technique, particularly if it can be associated with both a savings program and an increasing program of financing for middle-income housing.

It, therefore, is further recommended that if this type of instrument be used, it be adopted by the Korea Housing Bank for all mortgage programs.

Should it not be feasible to incorporate readjustable mortgages, then the cost of devaluation should be passed on to the homeowners through a Reserve Fund or higher interest rate.

	<u>With Readjustment</u>	<u>Without Readjustment</u>
INTEREST TO U.S. INVESTOR	8% (current rate)	8%
AID FEE	1/2%	1/2%
DEVALUATION RESERVE	<u>8 1/2%</u>	<u>6 1/2%</u> 15%

NOTE: The figure of 6 1/2% for the Devaluation Reserve is given as an example only. Selection of an appropriate Reserve amount must follow considerable discussion with ROK.

In addition ROK may wish to charge a fee for its guaranty.

A fee also must be paid to the administrator for servicing the mortgages. This fee is usually stated as a percentage of collections, rather than a percentage of the outstanding balance, but is normally the equivalent of an additional 3/4% per annum.

Other monthly charges may include, where applicable, insurance premiums for fire and extended risk and for term life insurance, and fees for maintenance of common areas and for an automatic home owners association.

2.3.4. Monthly Housing Payments: no less than 15% and no more than 25% of gross family income. However, in making these calculations it will be necessary to give due weight to anticipated increases in income in order not to limit unduly the market through over-restrictive buyer qualification.

2.3.5. Competitive Program. In addition to the above, it is recommended that the criteria for the competitive program indicate that priority consideration will be given proposals for housing located in proximity to new industrial developments and designed for occupancy by workers. Additional special consideration should be given to such programs developed in connection with housing cooperatives, workers housing, credit unions or other such proposals indicating the possibility of longer-range and continuing development.

2.4. Special Conditions for Initial Program. The Team recommends the following additional conditions for implementation of the initial projects.

These conditions are designed to encourage ROK active participation in keeping down unit prices.

- 2.4.1. A ROK/G guaranty of full dollar payment of principal, interest and AID fee on a continuing monthly basis .
- 2.4.2. ROK will assure provision of construction money from either the KHB or a commercial bank in an amount no greater than 25% of the total cost of construction at the market rate of interest without fees, discounts, commissions, early penalty interest rates, or other charges. General use of these fees raises the effective interest rates for construction money from 24% to in excess of 30%. Substantial ROK participation in KHB and the commercial banks should make such intervention possible.
- 2.4.3. ROK will assure provision of land at cost (in terms of a constant value Won) on condition of certain anti-speculation provisions. Both KHC and the City of Seoul presently benefit from the inflationary rise in land prices, and new land development programs are profitable ventures. Provision of land at its cost by either public agency should substantially reduce sales prices particularly for single-family homes, thereby, benefitting the new homeowners the program is designed to attract.
- 2.4.4. To encourage more permanent tenure and to dampen speculation, we propose that the following provisions be applicable in the event of sale or pre-payment:

a) In the case of those units for which land has been provided at cost by a public agency, the full amount of the increase in land value should be paid over to the public agency. (The amount of the increase should be determined in any event by the Ministry of Finance in connection with implementation of the Anti-Speculation Tax; therefore, implementation of the this proposal should be relatively uncomplicated.) Provision for this should run with the land independently of the mortgage for a stipulated period of time, say 10 years.

b) Further to reduce speculation we propose a substantial pre-payment penalty, to be revised downward in accordance with the length of time the property is held by its original purchaser.

2.4.5. In the event of pre-payment, by the individual home buyer, the money should remain with the Borrower in order to finance additional housing to be reloaned under the same terms and conditions as the original loan.

It is assumed that despite any precautions that may be taken to attempt to reduce speculative land sales, the HG projects cannot be isolated from over-all market tendencies prevalent in Korea. This waiver of immediate return of pre-payments to Investor will be helpful in order to maintain the supply of long-term capital funds suitable for relending in the housing market.

2.5. Recommended Program Participants

2.5.1. Borrower: (For both the negotiated and the competitive programs)
Korean Exchange Bank, a wholly-owned subsidiary of the official

Bank of Korea, responsible for handling all foreign exchange. KEB also can provide a guaranty of dollar repayment which, we are told, is the equivalent of an ROK guaranty.

2.5.2. Non-Profit Sponsor: The Korea Housing Corporation is recommended for the initial negotiated program because it appeared to the Team to be technically the best qualified of the potential non-profit sponsors interviewed. KHC also has available sites and has clearly demonstrated the capacity to sponsor substantial construction projects.

Actual construction contracts should be let to private builders by competitive bidding.

2.5.3. Administrator (For both negotiated and competitive programs): Choice of an Administrator is critical to the long-term success of the HG Program. The Administrator must represent the interest of the ROK, AID and Investors for the term of the guaranty and must be responsive to their requests. Initially the Team felt this role would appear to be most suitable for the Korea Housing Bank. However, this institution's previous performance has given rise to considerable criticism; and KHB has been unresponsive to USOM requests, particularly with respect to management of certain counterpart loans. Therefore, the Team recommends investigation also of Korea Trust Bank, Korea Development Bank, or KHC itself (which administers its own 8% loans program on a lease-purchase basis) for this position. However, in terms of the long-range strategy suggested in this report, selection of KHB as Administrator appears indicated.

2.6. Projects Ready for Early Financing

2.6.1. Bampo Area

KHC owns 53,000 M² of the reclaimed Bampo Site on the south bank of the Han River which is suitable for construction within the sale price limitations of the HG Program. KHC's current proposal for the site calls for upper-income condominium apartments to be financed by purchaser deposits. However, if financing can be made available, KHC has indicated it is prepared to present a new proposal involving less costly units. Because of KHC experience in constructing such units, the Team believes an acceptable proposal can be developed fairly promptly.

2.6.2. Private Developers

A number of private developers own vacant land in the vicinity of industrial developments, construction on some of which already has been started. Development of these, of course, must be undertaken competitively; but they are included to indicate the kinds of proposals a competitive announcement could easily stimulate.

Kum Ah Industrial Co., Ltd., owns 45,500 M² near Inchon, planned for construction of 2,000-2,500 single-family homes costing \$6,200. HYUN/DAE Construction Co., owns a 167,000 M² tract near Honam (near Pusan) adjacent to new Industrial district providing employment for 6,700 persons. DAILL Lumber Co., Gaebon-Dong Site has a site suitable for 2,000 units under development near a large industrial district. About 100 units costing \$9,000 are currently under construction.

3.0 INSTITUTIONAL RECOMMENDATIONS

3.1. Long-Range Goals and Objectives

3.1.1. New Housing Finance System

It is extremely difficult in Korea at the present time to distinguish in function the various government-owned or controlled commercial banks (into which category we include the Housing Bank), except that certain of them have been assigned specific tasks by ROK (i.e. housing, financing large industry, foreign exchange, etc.). Each derives its capital in almost exactly the same manner, and they deposit in one another as instructed by ROK. What is needed for housing is a new system, distinct and separate from the existing commercial banking system, and designed for the specific purpose of encouraging savings, on the one hand, and to provide for the construction and long-term financing of housing, on the other.

The Team feels that such a new system should be under government supervision but should be composed of privately-financed stock corporations with a clear and distinct name to identify their savings and housing component and with the broadest powers to raise capital through the issuance of stocks, bonds, and debentures, but with a major emphasis on savings.

An integral part of this system would be a government agency with a dual function:

- 1) To regulate and supervise these private savings and housing banks in the public interest (i.e. type of risk, type of loan, accounting procedures, reserves, surplus, net worth requirements, etc.); and
- ii) To serve as a banker's bank, a credit window designed to raise capital in the capital market for relending to participating

member housing banks and to stabilize the savings capital of the capital of the private banks in the event of regional dislocations or savings out-flow.

An additional fee-funded government agency also could be created to insure depositors' savings.

Under this program the Housing Bank will be either transformed into the supervisory and secondary market agency or dissolved; in either event its branches and the main banking operation will be offered for purchase to the private sector.

3.1.2. Maintenance of Value

The Team is aware of previous ROK consideration of a Maintenance of Value mechanism and believes that careful, serious consideration once more should be given to an alternate technique, primarily as a means of encouraging significant amounts of private capital into the long-term financing of home ownership on conditions acceptable to Koreans of moderate income.

Under present conditions the adjustment to inflation is accomplished through high interest rates. These severely restrict utilization of savings for long-term mortgages, and in fact the only current such program involves subsidized interest rates.

The Team believes ROK should give serious consideration to mortgage adjustment as a possible alternative technique. Mortgage adjustment has been used in other countries, such as Israel, Brazil and Chile. Conditions were different in these countries (in particular the rate of

of inflation in Brazil and Chile at the time of adoption was substantially greater than it is today in Korea), and the Team wishes to caution that this suggestion needs a most careful evaluation, which was beyond the scope of the Team's work.

The Team believes it's important that if an adjustment mechanism is to be adopted, it be applied both to savings and to mortgages.

Basically the technique involves the periodic adjustment of savings and outstanding mortgage balances (and hence monthly payments) in accordance with a pre-determined index.

The two variables that need to be examined in the specifically Korean context are the frequency of adjustment and the index to be selected.

The Team believes that the index selected should be statistical in nature (such as cost of living, consumer price or wages) rather than one determined by another administrative action.

Similarly the Team believes a regular, periodic review of the index is preferable to one contingent upon another administrative action.

In any event it must be stressed that MOV can only supplement, not replace, firm and successful ROK measures to counter inflation and that to the extent these measures are successful, confidence in the Won remains the major encouragement to savings and to long-term capital investment.

3.1.3. Lower Cost Housing

The Team recommends increasing emphasis by ROK on techniques for developing lower cost housing.

The Team recognizes that some efforts are being made, particularly by the City of Seoul, such as the Citizens Apartments program and the recently announced strategy for dealing with squatter settlements.

But a much greater effort needs to be undertaken and sustained as a part of national housing policy to develop experimental and innovative programs for the very low income and irregularly employed and for those regularly employed but who under present conditions cannot afford decent, safe and sanitary housing on an unsubsidized basis.

Wherever possible such programs should be self-liquidating, with subsidy limited to control of land costs or assumption by a sponsoring municipality of certain overhead costs.

The Team is aware of the very great difficulties involved and is not prepared at the present time to offer meaningful specific suggestions, but it feels that the problem is of such importance that a major effort must be undertaken.

3.1.4. Land Bank

Given existing land costs, ROK should encourage KHC and the various major municipalities to reclaim and to acquire vacant land for future developments. This program which, as has been demonstrated, can be self-liquidating, should represent in the long run the major element in municipal and KHC housing action programs.

In connection with this, land should be made available from the Land Bank at its cost expressed in a constant value Won to sponsors of planned housing developments designed for moderate-income families, with sales price

limitations and anti-speculation controls.

3.2 Intermediate Institutional Changes

3.2.1. The Korea Housing Bank

- a) Although KHB in the long run should divest itself of its operations in order to become a supervisory, regulatory, chartering and secondary mortgage institution, in the intermediate period it undoubtedly will continue to operate the ROK-subsidized mortgage program and its commercial banking operations.
- b) In terms of its ongoing programs, KHB should cooperate with KHC in making available construction financing and its long-term mortgage program, for as long as it continues to be directly involved, to sponsors of planned moderate income housing developments, as outlined below.
- c) KHB should develop a maintenance of value instrument such as mortgage adjustment or a Reserve Fund for use in connection with its existing program. One additional benefit of this will be to make its portfolio more marketable.
- d) Basically, KHB is in need of a major self-analysis. This, in the opinion of the Team, is something that cannot be provided by outside experts. What is required is an understanding, initially at the level of the Minister of Finance, of the necessary changes in practices and attitudes that can earn for KHB the confidence of the community it should serve. Perhaps initially there should be a sense of urgency of the tasks to be accomplished. More

systematic organization and more businesslike approach also are needed. The Bank has benefitted from considerable short-term technical assistance and participant training: the Team believes the capacity property to exploit such assistance must be internally generated.

3.2.2. The Korean Housing Corporation

- a) KHC should abandon two programs which, albeit profitable, could be equally well met by the private sector: rental apartment developments for foreigners and condominium apartment developments for the upper-income market.
- b) In selling off its foreigners apartments, KHC might be able to accept in trade as down payments (or acquire with the proceeds of such sales) tracts of vacant land assembled by investors. KHC thus could benefit by increasing its holdings of vacant land.
- c) KHC's current balance sheet shows an annual "profit" on its operations. However, more careful study is necessary to determine the impact of the spin-off of these two operations of KHC's overall financial health, including the overhead that must be attributed to its other operations.
- d) KHC should cooperate with sponsors of middle-income housing developments by making available land, as previously described, and technical assistance.

3.3 ROK Intermediate Housing Strategy

There are intermediate steps which ROK can take to encourage greater participation by the private sector in housing finance.

3.3.1 Employee Savings Societies

ROK should encourage participation by large employers in various schemes to generate savings and housing for workers. It should offer its collaboration in terms of land assembly, the provision of construction and mortgage financing, and supervision to assure the technical quality of construction, provision of anti-speculation controls, and audit and perhaps insurance of savings societies to protect depositors.

ROK participation should be so designed as to be compatible with the supervisory and deposit insurance features of the recommended long-range home finance system.

Industry for its part should encourage the organization of savings societies of all kinds with the purpose of savings for housing through regular payroll deductions. Employers could offer interest-free loans in an amount related to employee savings to help with downpayments; sponsor lotteries with the number of chances to be a factor of the percentage of wages saved and maintained in savings; offer to match in amount any drawing from a "Kyō" society (a form of rotating mutual lending society) which is placed and maintained in savings; and other incentives.

These incentives should be so set up as to remain in effect only as long as savings are maintained or used for housing. Upon withdrawal of savings or sale of the home, the employer contribution could revert to the savings society in order to increase its capital.

Employers also could participate in mortgages, together with KHB and future HQ loans.

It is important that housing so sponsored not be tied to continued employment with the sponsor.

3.3.2 Private Savings and Home Owners Banks

ROK should encourage formation--under appropriate regulations - of privately financed savings and home owners banks, exclusively devoted to housing and related fields, including acquisition of KHB branches where this appears feasible.

The Team feels that the average Korean, given the assurance of a safe and privately owned depository, could be motivated to save, at perhaps even slightly lower than current market rates, particularly if there is the promise of ultimate homeownership. The Team also feels that there exist private individuals and corporations who could operate profitably and effectively through formation of a savings bank for the specific purpose of developing housing.

Although commercial banks are currently paying 22% on savings, the Team feels it possible that such an institution might initially attract savings at 18%, thereby charging 20% for mortgages. At this rate, there are serious problems with longer term financing. However, financing at this rate for a medium term (5 to 10 years) is very competitive with all but the very limited subsidized mortgage program of KHB; and the technique is institutionally sound and capable of rapid development as interest rates generally decline and the capital market becomes stabilized.

3.4 Technical Assistance Needs

At the present time the Team feels no special technical assistance needs will arise in connection with the immediate implementation proposals

that cannot be met through the regular staffing patterns and procedures of the HG program.

However, we feel that in order to be able to achieve the maximum permanent institutional advantages, the Mission should fund a direct hire Housing Officer to assure proper continuity, and to expedite coordination of applications and processing.

Special short-term TDY assistance should be offered by A/H in connection with the negotiated Sponsor, particularly with reference to technical aspects of the application, and to site planning and dwelling unit layout; and in discussions of the proposed mortgage adjustment instrument.

Inspection Services--both construction and fiduciary--need consistent and regular monitoring. The Team feels this must be done through A/H personnel stationed permanently in the Region.

Subsequently, as capital market developments permit, FOK probably will benefit from both short-term and long-term technical assistance involved in studying existing legislation and preparing recommended legislation, if any, to establish a permanent housing finance system, and to assume certain clearly - defined responsibilities in connection with any newly - created regulatory, secondary market and deposit insurance mechanism or mechanisms.

Housing Guaranty Program - Korea

SER/H REFERENCE FILE

**PRE INVESTMENT
SURVEY REPORT
HOUSING GUARANTY
PROGRAM
REPUBLIC OF
KOREA, 1971**

Volume B

OFFICE OF HOUSING

Stanley Baruch, Director
Peter Kimm, Deputy Director

AGENCY FOR INTERNATIONAL DEVELOPMENT

II. THE MARKET, HOUSING PRODUCTION, FINANCING AND INSTITUTIONS

In preparing its findings and recommendations the Team first of all made a study of existing housing sector activities in Korea, and particularly in Seoul. This section identifies available housing market statistics in order to present preliminary data on effective market within the potential HQ market; describes how housing is produced and financed in both the private and the public sector; and identifies major public sector institutions. Section III presents technical data.

4.0 HOUSING MARKET

4.1 Available Statistics

ROK maintains considerable- albeit not always internally consistent- data on almost all phases of economic life except income distribution.

The 1970 Wage Survey analyses income distribution nationally in three major categories: mining, manufacturing, and services; but the income distribution analysis is not refined either by sub-industry or by geographic area. According to this study, 70% of the workers engaged in manufacturing were making less than the median average monthly wage of \$66; within the service industries 65% make less than the median of \$93.

To these base figures must be added the annual special earnings-- bonuses, gratuities, allowances and various supplements- which are regularly paid and which, for those industries covered in the Wage Survey, amount to an average increase in monthly income of 16.3%. These special earnings vary greatly. For people with a high school education or less, the special earnings average 12 - 15% per month. For college graduates the average is 19%;

many, of course, receive more-- a college faculty member reports receiving his monthly salary on the basis of a 16-month year, representing an effective 33-1/3% special bonus over his listed salary.

Special earnings are least in such industries as transportation, storage and communication-- 11 1/2% pro-rated on a monthly basis-- and greatest in such industries as finance, insurance, real estate and business services-- averaging 25% per month.

The existing data cover all wage earners, whereas male workers generally earn more than their female counterparts. The sex differential from the median average is least in such industries as electricity, construction, trades and restaurant-- 5%; and ranges upward through 10% in transportation and finance, to 13% in community, social and personal services.

Wages generally are higher in the major cities-- by 6 1/2% in Seoul, by 13% in Pusan.

Two-thirds of the 907,000 persons employed in Seoul were concentrated in the higher-paying tertiary industries, according to 1967 data. Seoul also contains the highest concentration of employees in relatively high-paying industries such as banking and insurance (median average monthly wage \$145), electrical (\$127), engineering (\$122) and other white collar and professional occupations.

KIIB staff have given 60,000 won (\$185) as the "average" monthly income for participants in its housing installment savings program. Salaries of middle to upper-middle level civil servants range from this figure to \$300 a month. ✓

4.2 Effective Demand in the HG Market

4.2.1 Data

Preliminary 1970 census data indicate 568,197 dwelling units in Seoul. Of these, 170,000 squatter and slum units housed 2 million persons. The remaining 3.5 million residents - or some 600,000 families - live in approximately 400,000 units. There are, therefore, approximately 200,000 families sharing living quarters in non-squatter areas, and it is assumed that among them will be found most of the buyers for the units to be marketed under the HG program.

1970
Extrapolations based on data in the National Wage Survey, adjusted to provide for the various differentials referred to, provide a basis for estimating the numbers of wage and salary earners in Seoul, within various income categories. A socioeconomic study of three Seoul neighborhoods also indicates that 27% of families have more than one wage earner, and an additional estimate has been made of double-income families at these incomes. If these extrapolations are correct, there are about 580,000 households in Seoul that may generally be termed middle-income.

Table 1	
<u>Estimated Number of Middle Income Households in Seoul</u>	
<u>Monthly Earnings</u>	<u>Number of Households</u>
\$50-100 [#] 29,000 - 40,000	318,300
\$101-184 40,400 - 73,600	184,900
\$185-250 74,000 - 109,000	41,600
\$251-310 100,400 - 124,000	28,300
More than \$310 124,000	15,500
Total	588,600

The following tables indicate the range of maximum sales prices and mortgage amounts that could be carried by families of various income levels at varying interest rates.

Table 2
Mortgages and Sales Prices Marketable
to \$50/Month Income Group

<u>Monthly Payment</u>	<u>Amount of Mortgage at 8 1/2%</u>	<u>Sales Price</u>		
		<u>1/4</u> <u>down</u>	<u>1/3</u> <u>down</u>	<u>1/2</u> <u>down</u>
20% of income \$10	20 years: \$1,150	\$1,500	\$1,700	\$2,300
	25 years: \$1,250	\$1,650	\$1,900	\$2,500
25% of income \$12.50	20 years: \$1,450	\$1,900	\$2,200	\$2,900
	25 years: \$1,550	\$2,100	\$2,300	\$3,100
<u>Amount of Mortgage at 15%</u>				
\$10	20 years: \$ 750	\$1,000	\$1,100	\$1,500
	25 years: \$ 900	\$1,200	\$1,350	\$1,800
\$12.50	20 years: \$ 950	\$1,300	\$1,400	\$1,900
	25 years: \$1,100	\$1,500	\$1,650	\$2,200

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Table 3
Mortgages and Sales Prices Marketable
to \$100/Month Income Group

<u>Monthly Payment</u>	<u>Amount of Mortgage at 8 1/2%</u>	<u>Sales Price</u>		
		<u>1/4</u> <u>down</u>	<u>1/3</u> <u>down</u>	<u>1/2</u> <u>down</u>
20% of income \$20	20 years: \$2,300	\$3,100	\$3,450	\$4,600
	25 years: \$2,500	\$3,300	\$3,750	\$5,000
25% of income \$25	20 years: \$2,900	\$3,900	\$4,350	\$5,800
	25 years: \$3,100	\$4,100	\$4,650	\$6,200
<u>Amount of Mortgage at 15%</u>				
\$20	20 years: \$1,500	\$2,000	\$2,250	\$3,000
	25 years: \$1,770	\$2,300	\$2,600	\$3,500
\$25	20 years: \$1,900	\$2,500	\$2,850	\$3,800
	25 years: \$2,200	\$2,900	\$3,300	\$4,400

Table 4
Mortgage and Sales Prices Marketable
to \$185/Month Middle Income Group

Monthly Payment	Amount of Mortgage at 8 1/2%	Sales Price		
		1/4 down	1/3 down	1/2 down
20% of income \$37	20 years: \$4250	\$5700	\$6400	\$8500
	25 years: \$4600	\$6100	\$6900	\$9200
25% of income \$46	20 years: \$5300	\$6500	\$7350	\$10,600
	25 years: \$5700	\$7600	\$8500	\$11,400

Amount of Mortgage at 15%

\$37	20 years: \$2,800	\$2,800	\$3,700	\$5,600
	25 years: \$3,300	\$4,950	\$4,400	\$6,600
\$46	20 years: \$3,500	\$5,250	\$4,650	\$7,000
	25 years: \$4,100	\$6,100	\$5,500	\$8,200

Table 5.
Mortgage and Sales Prices Marketable
to \$250/Month Middle Income Group

Monthly Payment	Amount of Mortgage at 8 1/2%	Sales Price		
		1/4 down	1/3 down	1/2 down
20% of income \$50	20 years: \$5,750	\$7700	\$8600	\$11,500
	25 years: \$6,200	\$8300	\$9300	\$12,400
25% of income \$63	20 years: \$7,200	\$9600	\$10,800	\$14,400
	25 years: \$7,750	\$10,300	\$11,600	\$15,500

Amount of Mortgage at 15%

\$50	20 years: \$3,800	\$5,100	\$5,700	\$7,600
	25 years: \$4,400	\$5,800	\$6,600	\$8,800
\$63	20 years: \$4,700	\$6,200	\$7,000	\$9,400
	25 years: \$5,500	\$7,300	\$8,200	\$11,000

4.2.2 Analysis of Effective Demand

A very great potential exists for units that could be marketed to the \$50-100 and \$100-184 a month income groups. However, construction costs are such that it is extremely difficult to provide new housing within a range of monthly payments that could be supported by this group.

✓ A strong market also exists for the \$185 a month income group. This can be met at existing construction costs but is not at the present time because of the unavailability of sufficient long-term financing.

Provision of heat and hot water should increase the desirability of units within the proposed price limitations.

Existing projects providing these amenities are selling well at substantially higher prices. The City of Seoul's 1971 middle-income project of 1,584 units has been completely sold out for cash, at the following prices:

216 units at \$6,700	
672	8,600
360	13,000
336	17,700

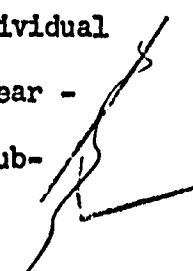
KHC has already received 300 applications to buy for cash units priced at \$20,000 in a proposed new project.

In analyzing effective demand it is important to keep in mind that under existing conditions the majority of Koreans do not have the opportunity to make regular monthly payments on housing. Rental payments are predominately on a key money basis; monthly rentals appear to be a feature of very low income units. Similarly the majority of home owners pay cash.

✓ In the only existing long-term mortgage program, that of the Korea Housing Bank, loans are limited to a ceiling of \$2,150, and thus require monthly payments of only about \$30, or about 16% of the average monthly

income of borrowers. KHB officials have indicated that they favor a prudent 15-20% ratio of housing payments to income, and this reflects published data on median average housing expenses.

In this connection it must be emphasized that although Koreans are accustomed to spending 15-20% on housing, this is done in the virtual absence of long-term financing. Korean incomes have been rising and a continued rise may be anticipated. In this light - and if no adjustable mortgage instrument is used - it may be advisable to extend credit to an individual who is willing to pay substantially more for housing in the first year - say up to 35% - with the expectation that this percentage will be substantially reduced over the long term.



5.0 HOUSING PRODUCTION

TABLE 6
Number of Units Built in Korea 1966-1970

<u>Year</u>	<u>Public Sector</u>	<u>Private Sector</u>	<u>Total</u>
1966	12,132 (13%)	81,817 (87%)	93,321
1967	9,559 (10%)	85,009 (90%)	94,568
1968	6,745 (7%)	89,489 (93%)	96,225
1969	25,258 (24%)	79,287 (76%)	104,545
1970	12,622 (11%)	102,398 (89%)	115,000

TABLE 7
Building Permits for Private Construction - Seoul

<u>Type of construction</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971 (4 Mo.)</u>
Detached Homes	22,473	24,234	30,212	3,367
Apartments	<u>1,695</u>	<u>2,400</u>	<u>3,105</u>	<u>615</u>
Totals	24,168	26,634	33,317	3,982

5.1 The Private Sector

As the above tables indicate, the private sector plays the primary role in housing.

5.1.1 Data on Individual Firms

Nine major construction firms and developers and two consulting firms were interviewed during the survey.

The following is a brief narrative of each of the firms, together with a short description of potential projects being considered by the firms for future development.

5.1.1.1 Dail Lumber Co. Ltd.

Dail has been actively involved in the construction of office buildings, medium cost housing and port facilities. Two projects are being considered by Dail in the Gae Bong Dong and Noonsari areas. Please refer to Reference No. 1 for additional information.

5.1.1.2 Hyundai Construction Co. Ltd.

Hyundai has vast operations throughout Korea, especially in the field of industrial and high rise construction. Please refer to Reference No. 2 for additional information.

5.1.1.3 Sampoong Construction Company

The company is principally devoted to the construction of multi-story apartment and office buildings, and residential construction. It owns land for development. Please refer to Reference No. 3 for additional information.

5.1.1.4 Tong Yang Group

The Group is involved in cement manufacturing, foods, construction and engineering, maritime transportation, and manufacture of asbestos cement building materials. It owns land for development. Please refer to Reference No. 4 for additional information.

5.1.1.5 Dae Lim Concrete Products, Inc.

This firm is engaged in development of a 2,000-unit new town for upper-middle income families about 47 miles from Seoul. Please refer to Reference No. 5 for additional information.

5.1.1.6 Chin Yang Department Mansion Co.

This firm has developed a large condominium apartment and commercial complex in downtown Seoul. Please refer to Reference No. 6 for additional information.

5.1.1.7 Chosun Engineering Corp.

This is a medium-sized firm which provides supervision, while subcontracting the actual construction, a practice common in Korea. It has been general contractor on AID-financed construction and has developed subdivisions in Seoul suburbs, usually with KHB financing. Please refer to Reference No. 7 for additional information.

5.1.1.8 Dillingham Land Corporation

Dillingham is one of the largest expatriate firms now operating in Korea. Its principal line of business include the construction of hotels, office buildings, apartments, commercial, industrial, land development and roads. It is currently constructing a luxury condominium apartment building for expatriate occupancy. Please refer to Reference No. 8 for additional information.

5.1.1.9 Russell Associates Inc.

Russell is a subsidiary of Russell Associates of Hamden, Conn., the firm is relatively new in Korea and plans to get into the housing construction business in the Republic. Please refer to Reference No. 9 for additional information.

5.1.1.10 Trans Asia Corporation

The company is engaged in Korea in construction supervision and in professional consulting work. Please refer to Reference No. 10 for additional information.

5.1.1.11 Waco Engineers and Associates

This firm is also engaged in consulting work and has submitted a proposal for a housing program. Please refer to Reference No. 11 for additional information.

5.1.2 Reference Material

List of contractors, builders, Korea. Reference No. 12

Directory of Member Firms, KMCCA. Reference No. 12

List of Professional A and E Associations, Korea. Reference No. 12

5.2 The Public Sector

ROK emphasis on housing was first expressed through policies designed to replace housing destroyed during the Korean war. Government Relief housing represented 43% and 49% of total housing production in 1953 and 1954 respectively. By 1957 ROK policy shifted from direct participation in construction to primary emphasis on private-sector housing production.

Original ROK budget estimates for housing investment during the first Five-Year Plan (1962-66) were set at \$41 million. This figure was almost halved to \$21.5 million in 1963. A total of 60,000 units were programmed. Actual construction totalled 40,000 units, 12% of the 327,000 units built during 1962-66.

Projections for the Second Five-Year Plan (1967-71) originally called for a total production of 800,000 units; this has subsequently been scaled down to 500,000 units because of increases in building costs. Of this total only 30,000 units were to be government sponsored, actually less than those built during the First Five-Year Plan, or 6% of total housing production.

✓ Actual housing production through 1970 has totalled 410,000 units, of which 54,300 - or 13% - were publicly sponsored.

Table 8: Housing Construction by the Public Sector 1967-1971

✓ By Korea Housing Bank (KHB) (Since 1968)	47,040 units
By Korea Housing Corporation (KHC)	5,045
✓ By City of Seoul and other municipalities	5,426

Note: (There is considerable overlap in the above data. Some of KHB loans are made to purchasers of KHC housing, KHC also constructs projects for other governmental units.)

In addition to the above major public sponsors of housing, there are the following:

- ✓ a) Ministry of General Administration; constructs sales housing for government employees:

1970 - 40 units

1971 - 1,830 units - programmed

- ✓ b) Office of Veterans; makes 25 - year 4% loans to disabled veterans or to war widows for construction of individual homes; funds are raised through a housing lottery:

1970 - 535 units (average loan \$800)

1971 - 2,000 units programmed (average loan \$3,200)

- ✓ c) Ministry of Health & Social Affairs - flood relief housing.
d) The Ministry of Agriculture & Forestry sponsors two exclusively rural programs:

- grants to encourage farmers to resettle and farm deforested area. In 1970 a total of 1790 grants were made, averaging \$510 each.

- replacement of thatched farmhouse roof with roofs of permanent materials.

5.3 Methods of Financing Housing

The following data have been developed for Seoul, which while the most important market, still accounts for only 20-25% of the total private sector in Korea. Private housing construction is generated from four sources:

1. An individual has his own home built on his own lot, using his own financial resources.
2. An individual has his own home built on his own lot with the assistance of a loan from the Korea Housing Bank.
3. A home-builder or developer constructs individual homes for sale.
4. A developer constructs apartments for sale or rent.

5.3.1 Korea Housing Bank Program (KHB)

The Korea Housing Bank offers the only long-term mortgage program in Korea. During the period 1968-70 KHB made 47,040 loans. During these same three years, a total of 315,770 units were built. In 1970 KHB financed 9,399 of 115,000 units built. Thus long-term financing is available for only a small proportion of the units built.

The term of KHB loans is 15 years. Interest rate for purchases of KHC or municipally-sponsored housing is 8%; loans to individuals are at 14%.

If the home owner wishes a loan from the Korea Housing Bank, he must first purchase the land at an average cost of \$3,000. Using the land as collateral, KHB will lend a maximum of \$2,150 towards the construction of a house. A modest house will cost \$3,700, above and beyond the land. KHB financing, therefore, in this case covers about 30% of the total cost of the house and land, for a moderately priced unit. These KHB limitations are designed to exclude upper-income housing, and to make the resources available to the largest possible number of borrowers.

In general, financing of housing in the Public Sector is characterized by the following:

1. Even when loans are available from KHB, a very high initial equity position is necessary.
2. In the absence of financing, most public programs are moving towards production of more expensive housing for higher income groups, which can more easily accumulate the cash required for payment in advance, and for which extra-budgetary interim financing is available through these advance payments.

5.3.2 Private Financing

The team found private bank loans for home purchase available in

only one instance. In this case one developer had encountered market difficulties, and the bank holding the construction loan offered essentially an extension of the construction loan to home buyers: 80% ratio loan to value, term 5 years, interest rate 24%.

In the private sector housing is essentially sold for cash. Contracts for purchase of land, for the purchase of homes or apartments, or for construction of a home provide for a schedule of payments to be completed prior to occupancy.

Sources of funds for home purchase are mostly unofficial; sale of existing property, taking advantage of inflation, or return of rental key money; "mattress savings", augmented by participation in Kye societies (a form of rotating mutual lending society very common in Korea and in the Far East), small consumer loans to friends and acquaintances (at an interest rate of about 4% per month), or inheritance. Borrowings from private sources are relied upon only as a last resort because of the crippling interest rates.

A Korean family will launch itself on the housing escalator by saving for five years or so and by augmenting these savings through the Kyes and through small loan transactions (the traditional contribution of the Korean housewife to family economies) in order to buy a small older house or apartment for, say, \$1,500 to \$3,000. Relying upon continuing inflation and the escalation of real estate prices adding to family savings and the wife's small loan manipulations, the family hopes to obtain the means to move up into increasingly adequate housing every few years.

5.3.3 Role of Land Speculation

Land speculation is endemic in the Seoul area. Over the last few years increases in land prices have averaged 30%, representing a

inflation
substantial hedge against inflation, whose annual rate during the same period averaged 11%. For those whose transactions have been both timely and well located, of course, the benefits have been much more substantial.

As was indicated previously, the purchase and resale of one's home represents for most Koreans the surest way to economic upward mobility. This pattern is repeated on all levels, from the squatter, who can receive \$18 to \$30 from sale of his resettlement plot and move back into another illegal area to await re-relocation and recapitalization; to the Korea Housing Corporation and City of Seoul, both of which sell off parcels from their land improvement programs (and in the case of the City other holdings) at market prices, thereby benefiting from the continued increase in land prices.

5.3.4 Rental Payments

Payments for new rental units and for most middle-class rental housing in Seoul are primarily on a "chonseh" or key-money basis, with the tenant making payment which entitles him to occupancy of the unit for six months or a year. This deposit is returned at the end of the contract period. One study of a long-established residential neighborhood in the center of Seoul indicated that three-quarters of those who rented made "chonseh" payments. Thus occupancy of the dwelling unit becomes a sort of consideration for what amounts to an interest-free loan, and entrepreneurial profit comes from use of the tenant's money - one-year Korea Development Bank bonds pay 33%, commercial banks pay 22% on time deposits, interest rates on the flourishing curb market can easily reach 5-7% per month - rather than from the real estate operation in itself.

The unofficial money market represents a significant element in the Korea capital market. In an earlier study prepared for the AID Mission the total volume in this market in 1964 was estimated at \$170 million. (This compares with \$400 million of primary securities held by individuals and private corporations in the official capital market.)

Of this total about \$70 million or 40% are held in the so-called curb market, consisting of what may be called full-time participants such as money lenders and brokers, as well as landlords and shopkeepers for whom money-lending is a highly lucrative side-line. Loans on the curb market are made primarily to small and medium enterprises.

(Another \$41 million was estimated as being involved in the yes, the balance in various other occupationally based types of mutual lending societies.)

5.3.5 Interest Rate Structure

A highly variegated and complex interest rate structure persists in Korea as a result of a long-time ROK policy to manipulate preferential interest rates in accordance with developmental goals. Thus, for example, although the Korean Housing Bank charges subsidized interest rates of 8% and 14% in its limited existing mortgage program, it pays 22% on savings, and the rate for commercial bank loans is 24%.

Obviously Korea's persistent inflationary difficulties contribute to these high rates. Consumer prices, since various anti-inflationary steps were taken in the mid-60s, have increased an average of 11% per year. Over the same period the Korean Won has "floated" or been devalued an average of a little more than 6% a year in relationship to the dollar.

ROK restraints also contributed. Prior to the interest rate reform in 1965, the government-imposed ceiling on allowable interest rates discouraged capital from the official market. Capital instead sought the unofficial market.

This situation has improved somewhat. Commercial bank lending rates, which moved to 30% at the time of the interest rate reform, have since that time drifted downward to 24%.

6.0 SURVEY OF THE PUBLIC SECTOR INSTITUTIONS

During the course of the survey three Korean national institutions were reviewed: The Korean Housing Corporation (KHC), the City of Seoul, and the Korean Housing Bank (KHB). These institutions are all involved in the development, construction and financing of housing in Seoul and in the principal cities (KHC and KHB).

6.1 Korea Housing Corporation (KHC)

6.1.1 Operations and programs:

The Korean Housing Corporation (KHC) was organized 1962 as a successor to the Korean Housing Administration (est. 1941).. As a government corporation capitalized at \$30 million in order to contribute towards stabilization of the national housing problem, the KHC has the following functions:

- a) Construction, sale & management of housing
- b) Construction & management of community facilities and utilities
- c) Land development
- d) Research for improvement of building materials.

KHB and its predecessor agency have constructed 22,547 dwelling units.

KHC operates three types of sales housing programs on its own behalf in 11 cities:

- 1) A lease-purchase program of single-family house for lower-income families. Homes in the 1970 program were 43 M² in size and sold for \$3,600; on terms of two-thirds down, the remaining one-third a loan from the Korea Housing Bank to be prepaid at 8% over 15 years. KHC administers these loans itself and retains title to the property until loan maturity. Collection

experience has been good.

ii) Medium-cost apartments for sale using the maximum Korea Housing Bank loan (\$2,300) to be repaid at 14% over 15 years. Units in one current project range in price from \$8,140 to \$10,800 are from 43 to 66 M² in size.

The required downpayments vary from 74% to 80% of the purchase price, to be made in four installments.

iii) Upper-income sales apartments, ranging in size from 86 to 198 M² and in price up to \$35,000 to be purchased exclusively in cash with no financing. The proportion of KHC activity in this market is increasing because (1) The market is strong, and (2) construction can be financed from purchaser pre-payments.

Other KHC programs include: 1) sales housing for other ROK agencies; 2) construction and management of rental apartments

for foreigners (a highly profitable venture that AID/Korea has recommended be spun off in order to provide capital for middle-income housing); and 3) a land development program initiated in 1967 that has prepared 2.5 million M² for its own sites and for sale to individuals and other developers.

- The following charts illustrates the housing programs undertaken by KHC in 1970 and planned for 1971.

Table 9

KHO CONSTRUCTION ACTIVITY IN 1970

<u>Project Location</u>	<u>Type of Program</u>	<u>Area of Construction</u>	<u>No. of Family Units</u>	<u>Total Construction Cost</u> (Million)	<u>Average Price</u>
Kai Bong	Low cost Housing for lease/purchase	43 M ²	1,000	\$31.9	\$ 6,300
Kai Bong	Middle and upper cost apartment for sale	43-66 M ²	818	16.9	\$21,200
Several	Sales housing for other public agencies	16-180 M ²	864	67.0	\$ 7,200
Riverside	Foreigners, rental Housing	86-125 M ²	<u>957</u>	<u>83.2</u>	\$ 8,750
		TOTAL	3,639 <u>1/</u>	199.0	

1/ Completed in 1970 = 2,424 units

Land Development

	<u>Area</u>	<u>Cost</u> Million \$
Kai Bong 1st Site	87,800 M ²	4.29
Kai Bong 2nd Site	<u>97,000 M²</u>	<u>20.64</u>
TOTAL	184,800 M ²	24.93
GRAND TOTAL		223.93

Table 10

KHC CONSTRUCTION ACTIVITY IN 1970

<u>Project Location</u>	<u>Type of Program</u>	<u>Area of Construction</u>	<u>No. of Family Units</u>	<u>Total Construction Cost</u> Million \$	<u>Average Price</u>
Kai Bong	Low cost housing for lease-purchase	43 M ²	500	21.4	\$ 7,500
Han River Area and Ban Po	Middle and upper cost apartments for sale	59-66 M ²	1,248	88.5	\$20,000
Several	Sales housing for other public agencies	16-56 M ²	1,442	102.6	\$ 8,000
Nam San	Foreigners, rental housing	56-122 M ²	<u>475</u>	<u>66.2</u>	<u>\$12,000</u>
		TOTAL	3,665	274.70	

Table 11

KHC LAND DEVELOPMENT ACTIVITY IN 1971

<u>Project Location</u>	<u>Area</u>	<u>Cost of Program</u> Million \$
Kai Bong 1st Site Land development	1,056,000 M ²	13.3
Kai Bong 2nd Site Land development	<u>1,650,000 M²</u>	<u>32.2</u>
TOTAL	2,706,000 M ²	45.50

6.1.2 Potential projects to be developed by KHC.

✓ A) Bampo Area.

KHC has begun extensive fill of the Bampo area located on the banks of

the Han River in the south of Seoul. The site is served by major transit arteries and connected to the metropolitan transit system. KHC plans to start construction of apartment housing by early 1972, upon completion of the land reclamation and fill project. The following is a description of the land and the project:

a) Land Ownership: KHC is the owner of 53,000 M2 of land in the area.

b) Land value: Approximately \$17.60 per M2

c) Physical characteristics: The site is about 20 minutes from downtown Seoul. Land is being filled by the KHC to a level 2 mts. above the maximum recorded flood level (1925), the material used for fill is sand and gravel from the river bed.

d) Land planning and zoning requirements: The master development plan for the project is now being submitted by KHC to the Central City Planning Board of the Municipal Government for approval. It features major peripheral streets, shopping areas, schools, playgrounds, parks and community buildings. KHC is willing to redesign the apartments to accomodate the limitations in selling price as set out by the HIG/AID program.

e) Apartment design: Reinforced concrete structure, ribbed slab flooring, brick and cement block partitions, pile footings, use of prefabricated elements (slab panels, sills, frames), central hot water heating, finished floors and walls, wood windows and doors, - The Engineering Department of KHC is in charge of the design.

f) Utilities: Water supplied by the city of Seoul water department. Sanitary system to be built by KHC; includes the construction of a sewage treatment plant. Electricity to be supplied by the Korea

Electric Company; adjacent to the property the Company has a 22,000 volt line which could be used to serve the project. The city is responsible for maintenance and provision of the water, garbage and sewer services. The Korean Electric Company maintains the electric service to the project.

g) Facilities: The Municipality will provide for the construction of a school in land donated by KHC. The cost of the school will not be charged to the project. Playgrounds and parks shall be provided according to the Public Housing Law. Commercial space (land) will be sold to private developers for construction of commercial facilities. There are no plans at the present time for construction of the community facilities. KHC plans to build a swimming pool for the project and will reserve space for future construction (by developers) of other community facilities. Refer to Appendix 4 for cost of utilities.

✓ B) Development plans

KHC is interested in finding long term financing for construction of the lower cost apartments and indicated it would accommodate its programs to HIG terms. The construction of the apartments would be done by private builders through public bidding on a competitive basis. KHC would require the customary performance and stability bonds (10% of cost of construction for each item for 1 year). As of the date of the interview (June 14, 1971) KHC had received applications for approximately 300 apartments of the \$20,000 price for its Bampo project.

6.1.3 Reference material:

Organizational Chart, Korea Housing Corporation - Appendix No. 1

Status Book, Korean Housing Corporation

Reference No. 13

Guide to Riverside Village, Korean Housing Corporation

Reference No. 13

Information of Bampo project; Reference No. 13

Interview notes. Reference No. 13

Seoul City

6.2 Municipal Programs

6.2.1 The Metropolitan Government of the City of Seoul

The City of Seoul has undertaken a considerable program of housing in Seoul, which is being carried out by the Department of Construction, acting through private contractors.

This program was initially directed towards low income groups but moved later on towards non-subsidized higher income groups, because of lack of funds.

6.2.1.1 Low income housing program.

City of Seoul started construction in 1968 in Seoul of subsidized apartment projects called Citizens Apartments for sale to squatters and former slum dwellers. Financing comes from city funds, although in the first year there was ROK financial participation.

Table 12
Construction of Seoul City Citizens Apartments

<u>Year</u>	<u>No. of Units</u>
1968	1,200
1969	1,500
1970	420
1971	1,110 (Programmed, cut back from original 3,000)
1972	3,600 (i.e., 20% over previous year's budget)
1973 ?	

Construction of this program dropped off in 1970 because of construction defects discovered in units built in 1969, including collapse of one building killing 60 residents. As a result of this the mayor of Seoul resigned. The City's current fiscal problems make construction of even its reduced program for 1971

Seoul City

doubtful.

During 1968-70 the city constructed two-room shell apartment units 36 M² in area of construction. The units had one water tap, and each 10 units on a floor shared a common sanitary facility. Cost of these basic units was \$1,000.

Before these units could be occupied, however, the cost of the interior finish and a pro-rata share of the common WC had to be paid in advance by the purchaser, as a down payment. Three alternatives were offered, ranging in cost from \$400 to \$849.

The city contributed \$310 as a construction subsidy, the balance of \$700 was advanced to the purchaser as a loan, repayable in 15 years at 8%.

Table 13
Payment for Citizen Village Apartment (1968-1970)

<u>Price:</u>	Basic construction	330,000 won	\$1,000
	Interior, WC (ave.)	230,000	700
		<u>560,000</u>	<u>\$1,700</u>

<u>Payment:</u>	Downpayment (40%)	230,000	\$700
	City Subsidy (20%)	100,000	300
	Loan from City (40%)	230,000	700
		<u>560,000</u>	<u>\$1,700</u>

Monthly Payments

Loan Repayment	2,000 won	\$6.15
Electricity	200-600	\$0.61 to \$1.80
Water	200-400	\$0.61 to \$1.20
Heat Winter	2,000	\$6.15
Summer	800 - 1,000	\$2.50 to \$3.00

Total Gross Rental: 3,200-\$5,000 (\$10-15)

Seoul City

Problems involved in organizing purchaser options for apartment interiors led the City in 1971 to build slightly larger (40 M²) and completed units. The newer units cost more (\$2,600,) requiring the following payment schedule:

Table 14		
Revised Payment for Citizens Village Apartment (1971)		
Down Payment (20%)	198,000 won	\$500
City Subsidy	257,000	800
Loan from City	440,000	1,300
Total Sales Price:		
	855,000 won	\$2,600
Monthly Payments		
Loan/Repayment	4,000 won	\$12
Utilities	1,200 - 3,000 won	\$3.70 to \$9.20
Total Gross Rent:	5,200 - 7,000 won (\$16 to \$21.50)	

Garbage removal, repairs to the buildings and other management and maintenance expenses are paid by the city, which maintains a management staff on each project site. Collections pose difficulties, and delinquencies run 20 - 30%. The city has a program for eviction of non-payers to a squatter resettlement area, but no eviction action has been undertaken.

According to the manager of one 1,300 unit project visited by the Team, about one-third of the occupants are four to five months in arrears. About half of the occupants sublease one of

Slough City

their two rooms, charging either a monthly rental of \$12-15 or key money of \$300.

6.2.1.2 Middle income programs:

In 1970 the City started a program for construction of middle-income projects in 12-13 story elevator apartments. About 2,200 units were built the first year. 1,584 units are presently under construction to be terminated in 1971.

The purpose of the program is to make available improved housing for residents of the low-income projects. Financing is drawn exclusively from purchaser deposits, the units must be fully prepaid before occupancy.

The units range in size from 50 M² - 132 M². Construction cost in 1970 was \$75 per M², making a sales price range of \$3,700 to \$10,000.

The 1971 program calls for construction of a better quality unit at \$130 per M², thereby increasing sales price range to \$6,550 - \$14,500.

These units must be pre-paid in from four to eight installments.

6.2.1.3) City employees program:

A program comparable to the one described above for city employees and other special categories of office workers, is also scheduled to be started in 1971, with 595 units programmed. Construction, pricing and pre-payments are essentially the same as for the middle-income program. In this case there will be a capital subsidy by the city. The amount of the subsidy has not been determined yet.

Seoul City

6.2.1.4 Land Reclamation Programs:

The city also is cooperating with the Korea Housing Corporation in the ultimate reclamation of 1,150,000 M² for construction of projects by KHC and for sale of individual lots.

One such site (Kwang Joo) has been designated as a squatter resettlement area. Squatters are given 66 M² lots, which they are to improve prior to receiving title. A copy of the Kwang Joo area development plan is included in Reference 16.

Construction of 1,600 apartments has been started on Yoido Island. Long-range plans call for development of a massive project on the South side of the Han River.

6.2.1.5 Squatter Area Rehabilitation

status?

The city has recently announced a new phase in its effort to solve the squatter housing program without great displacement or capital investments beyond its means. Under this program which was announced towards the end of the Team's visit and which it did not have the opportunity to study in depth, squatter areas will be studied and plotted, basic services will be installed (i.e. water and sewage lines), and then squatters will be allocated lots on which they will improve their existing structures.

6.2.2 Programs of Other Municipalities

Housing programs sponsored by other municipal governments include:

Table 15		
<u>Municipal Housing Programs: Number of Housing Units Programmed</u>		
<u>City</u>	<u>1970</u>	<u>1971 (planned)</u>
Pusan	892	500
Taegu	578	480
Inchon	280	214
Kwangju	96	252
Taejun	208	224
Other cities	<u>252</u>	<u>256</u>
SUB-TOTAL:	2,306	1,926
Seoul		
Low Income	420	1,110
Middle Income	2,200	1,584
Civil Employees		<u>596</u>
Total	<u>4,926</u>	5,216

6.3 The Korea Housing Bank (KHB) ✓

6.3.1 Financing Programs:

Established in 1967 as a government corporation to provide financing for home construction and purchase, KHB represents the major ROK contribution to housing production. The bank offers construction loans at 24% to both public and private developers. Long-term loans to purchasers of Korea Housing

Corporation or municipally sponsored housing is at 8% for 15 years; loans to individuals are for the same term at 14%. Maximum loan in both cases is \$2,150, and maximum house size is 66 M².

As of the end of 1970 about half the public and two-thirds of the private activity was in Seoul.

As the bank received funds from the central government at 2%, but must pay 22% to attract savings, the volume of lending it can offer at the lower and therefore the subsidized interest rates is limited by the annual capitalization by ROK.

An analytic report on KHB is presented in Appendix 11 and resource material is provided in Reference No. 19.

III. TECHNICAL REPORT

7.0 GENERAL DESCRIPTION OF THE REGION

7.1 Country background

7.1.1 Geography

The Republic of Korea is located on the mountainous Korean Peninsula, about 600 miles long and 135 miles wide, projecting southeast from mainland China.

7.1.2 Climate

Summers are hot and humid, with temperature reaching 34° C. Winters are dry and very cold, temperatures of -15°C are not uncommon.

7.1.3 Seismic disturbances

There is no record of seismic activity in Korea.

7.1.4 Population

The area of ROK is 38,000 square miles, its population more than 32 million. The overall population density of 843 persons per square mile is very high.

7.1.5 Population distribution

Population distribution, because of the mountainous areas, is very uneven, with extremely high densities concentrated along the western and southern coastal areas.

7.1.6 Size of major cities

Seoul, located in the west-central portion of the peninsula, less than 30 miles from the demilitarized zone, is the country's capital and largest and fastest growing

city, with a population estimated in 1970 of 5.5 million.

Two other cities have more than 1 million population - Pusan, the port city at the southeastern tip of the peninsula, with 1,880,000; and Taegu, about 55 miles north of Pusan in the heart of the country's most extensive farming area, with 1,083,000.

In addition to residents of the three major centers, an additional 5.2 million Koreans live in cities of 50,000 population or more. Thus 13.6 million, or more than 40% of the population, are city dwellers.

Population growth in these cities and in the towns averaged 4.5% per year during the 1960's and urbanization is expected to continue.

TABLE 17
POPULATION OF MAJOR CITIES

<u>City</u>	<u>Population 1971</u>
Seoul	5,500,000
Pusan	1,880,000
Taegu	1,083,000
Inchon	590,000
Kwangju	471,000
Taejon	373,000
Junju	248,000
Masan	188,000
Soowon	165,000
Chongju	134,000

7.2 Major Industries

TABLE 18
LIST OF MAJOR INDUSTRIES AND EMPLOYMENT

<u>Industry</u>	<u>Number of Workers</u>
Agriculture	5,389,000
Services	1,396,000
Manufacturing	1,204,000
Commerce	1,204,000
Construction	381,000
Transportation	283,000
Fishing	177,000
Mining & Quarrying	101,000
Public Utilities	30,000
Total	10,165,000

Manufacturing has been one of the fastest growing sectors in the Korean economy, its output growth in real terms during 1965-68 being 25% per year, twice as fast as the growth of GNP, according to a study by an international organization.

Production of consumer goods represented the largest component in 1968 - 58% - followed by capital goods - 21.5% - and intermediate goods - 18.4%.

Small and medium-sized enterprises were responsible for 40% of total production in 1968, although there is a marked tendency towards increasing size of industrial units.

Industrial production is concentrated in the Seoul and Pusan centers.

7.3. The City of Seoul

7.3.1 Geography

The City of Seoul is located in the Northwestern section of the Republic of Korea, North Latitude 37°-32' to 37°-41' East Longitude 126°-45' to 127°-11'. The city stretches on both sides of a valley formed by the River Han, surrounded by rocky hills.

7.3.2 Climate

The climate of Seoul varies between a minimum temperature of -15° C and maximum of 34° C. The median annual precipitation is 1,200 mm.

7.3.3 Population

TABLE 19
POPULATION GROWTH OF SEOUL ✓

<u>Year</u>	<u>Area (Km²)</u>	<u>Population (000)</u>
1913	36.18	317
1936	133.94	727
1944	136.00	947
1949	268.35	1,418
1960	268.35	2,445
1963	613.04	3,254
1965	613.04	3,470
1970		5,509
1976		6,700

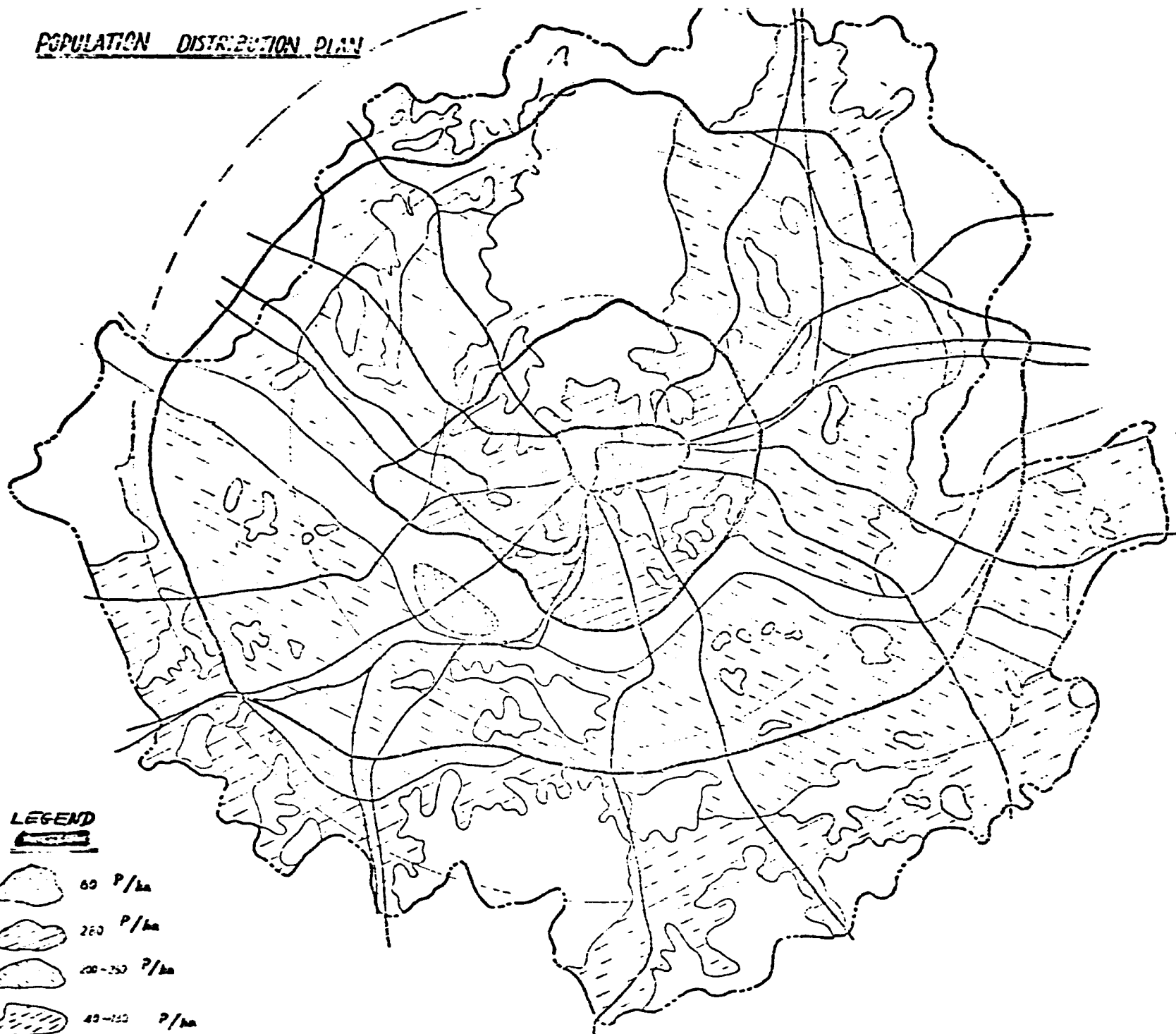
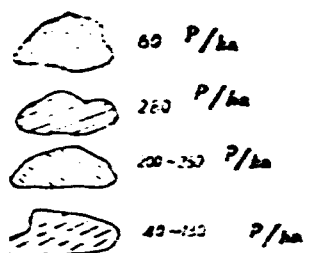
7.3.4 Population Distribution

Distribution Plan

According to data from the Bureau of City Planning of the Seoul Metropolitan Government, the population distribution of the Seoul Metropolitan area is concentrated as shown in the density map on page 56.

POPULATION DISTRIBUTION PLAN

LEGEND



Map No. 1

TABLE 20
Peripheral Population Distribution

<u>Circle</u>	<u>Residential Area (km²)</u>	<u>1968</u>		<u>Plan (1991)</u>		<u>Remarks</u>
		<u>Population (000)</u>	<u>Density Person/ha</u>	<u>Population (000)</u>	<u>Density Person/ha</u>	
Total:	451.40	4,806	109	7,610	170	
5 km circle (in radius)	52.05	2,006	385	1,345	280	Down- town
10 km circle	145.15	2,225	154	3,628	250	Zone of Transition
15 km circle	189.56	539	28	2,369	125	Suburban
20 km circle	64.7	36	5	258	40	Green Area

7.3.5 Planned City Development

Concentration of future population in Seoul beyond the 10 km. circle has been planned by the Seoul Bureau of City Planning as follows:

<u>District</u>	<u>Population</u>
Dunpyung	300,000 persons
Mia	300,000 "
Chungryangri	400,000 "
Chunho	400,000 "
Youngdong	600,000 "
Youngdungpo	800,000 "
Kimpo	250,000 "

7.3.6 Land Use Plan

Zoning

<u>Total</u>	720.87 Km ²
<u>Residential</u>	364.75 Km ²
<u>Commercial</u>	15.33 Km ²
<u>Quasi-industrial</u>	66.29 Km ²
<u>Green</u>	274.49 Km ²

7.3.7 Land Development Plan

502,88 Km² out of total metropolitan area of 720.87 Km² are planned for development in 1991. 130 Km² have been developed as of 1970.

7.4 Reference Material

Outline of Seoul City Plan; Reference No. 14

Map of Seoul Reference No. 14

Master Plan for Yoido and Han River Side Reference No. 15

City of Seoul Projects - Reference No. 16

8.0 METHODS OF CONSTRUCTION, MATERIALS, LABOR

8.1 Typical construction methods

Traditional methods are widely used throughout Korea in the construction of housing units and apartment buildings. Extensive use is made of cement components such as concrete blocks, asbestos cement roofing, and reinforced concrete structural systems. No evidence was found of use of sophisticated construction systems, such as lift slab, tilt-up or similars. Wood is used to a minor scale because of the lack of production of lumber in Korea. Most wood is imported from Malaysia and Indonesia. Asphalt tile is commonly used as floor finish; wall paper and paint are popular wall finishes. See attached Typical Wall Section on page 61

Central air conditioning is commonly used in the newer high rise office buildings and hotels. Apartment buildings have no air conditioning with exception of high cost (\$35,000 up) projects, such as the apartments being built by Dillingham in Seoul. Individual room units are purchased by the homeowner, their use is increasing in popularity. Heating is provided by the use of radiant and radiator hot water systems in upper income housing construction. The traditional system used for heating in low cost housing is the ONDOL method.

Basically Ondol heating makes use of hot air circulation through clay pipe semi-circular ducts located below the floor. The heating element is the kitchen stove. Coal briquettes are used as fuel. This system is cheap and effective. It has been used in Korea for many centuries. See attached sketch, on page 62.

8.2 Pre-fabrication

The prefabrication industry is slowly starting to develop in Korea. So far there is not a line of prefabrication which may provide for the entire components of a housing unit. Most prefabricated sections are

made of concrete. These include window sills, stair sections, wall panels and prestressed joists and beams. There is not a market large enough which could justify the development of an extensive prefabrication industry.

8.3 Materials and Labor

Most building materials are produced locally. The exceptions are vertical transportation equipment, large electrical equipment and wood. The quality of the local building products is good. However, several builders complained of defects found in pipe fittings, bathroom fixtures and hardware.

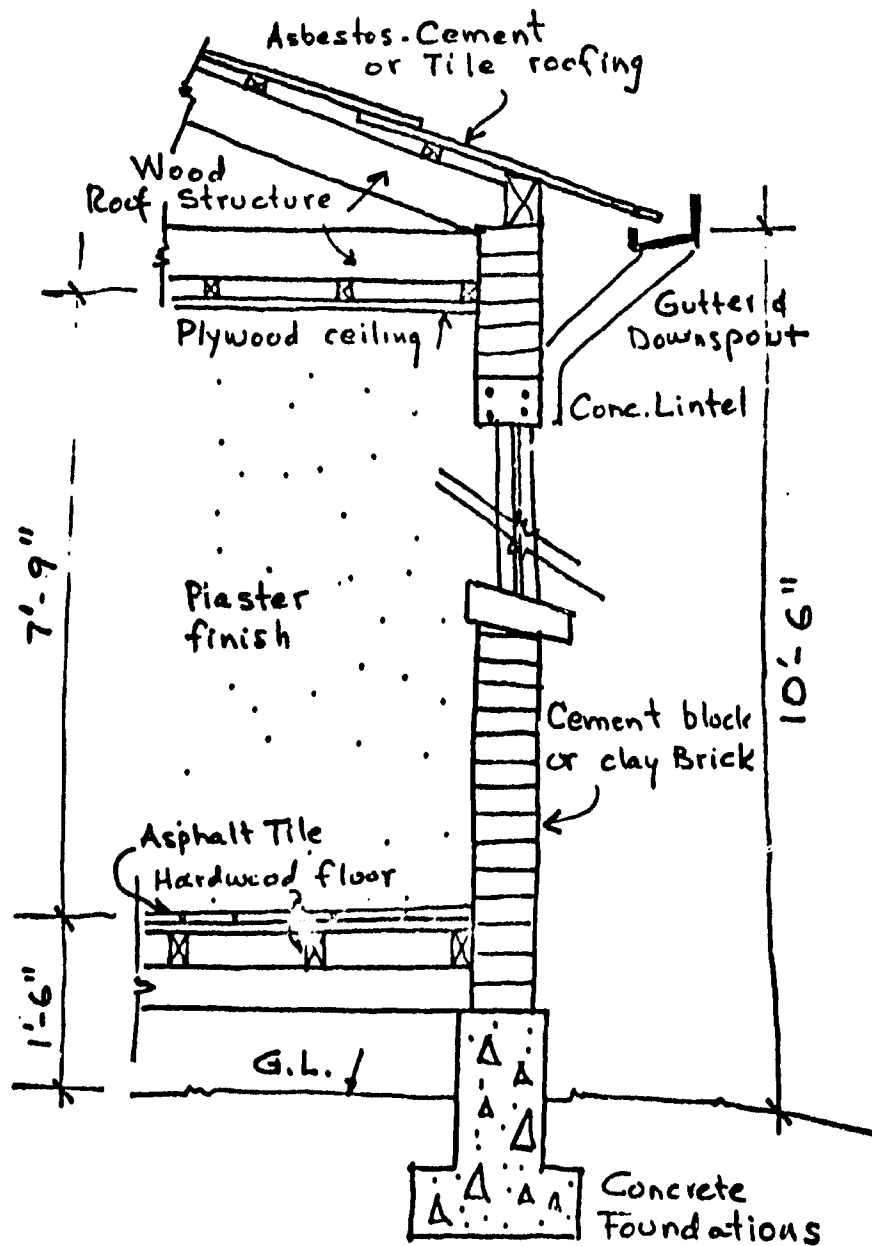
Skilled and semi-skilled labor is available in Korea. Availability of adequate labor force should pose no problem for the implementation of a housing program of the magnitude proposed in this report. The builders were unanimous in pointing out the eagerness, willingness and achievement of the Korean laborers in learning new methods and trades. Please refer to Appendix No. 6 for average wages and to Appendix No. 2 for price of materials.

8.4 Research

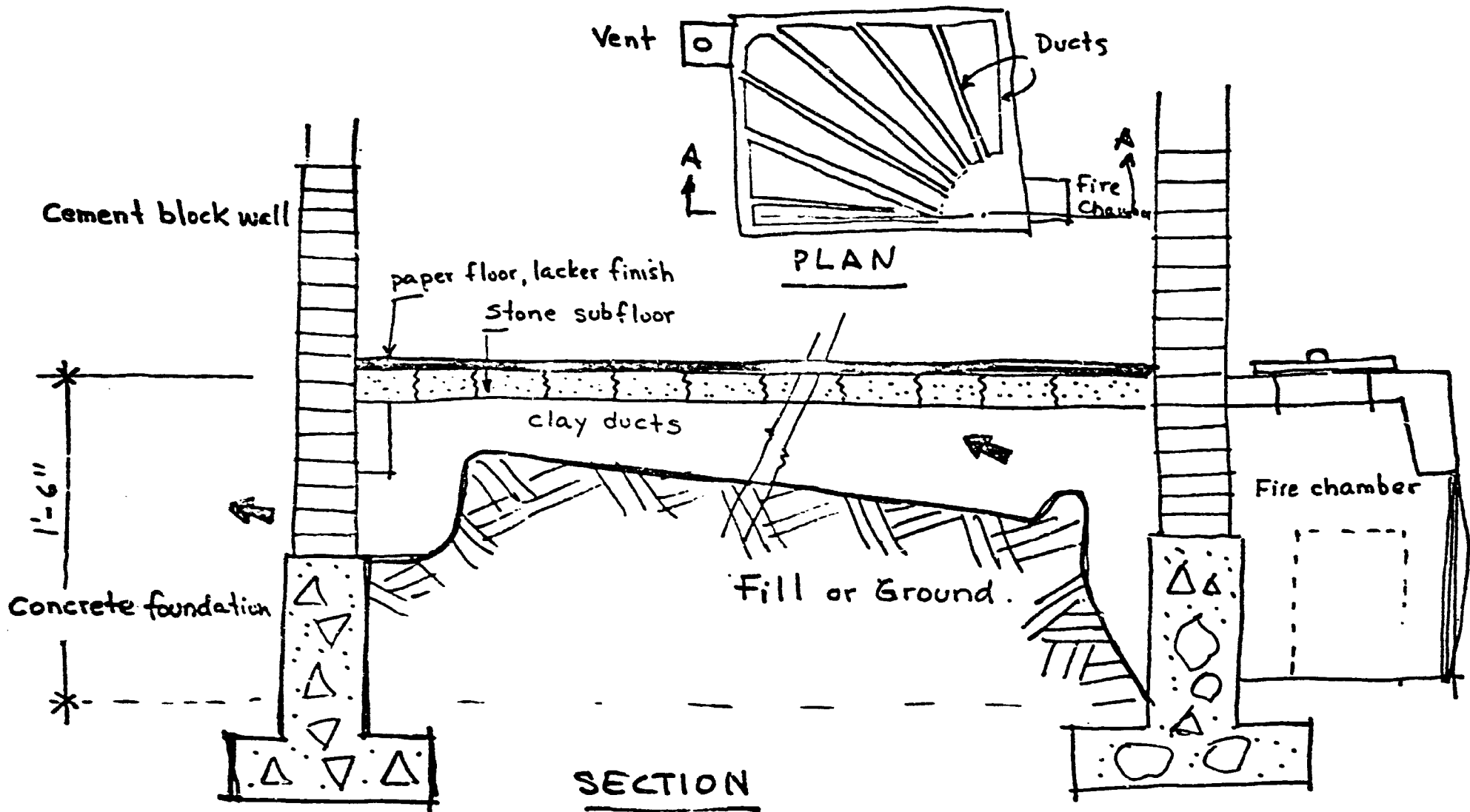
✓ The Korean Housing Corporation has a section of its Technical Division dedicated to the research and testing of new materials and methods of housing construction.

8.5 Equipment

There is light and heavy construction equipment in Korea available for house and apartment construction. Local developers and builders make extensive use of earth moving equipment, compactors, heavy duty transports, cranes, mixers, metal scaffolding, etc.



TYPICAL WALL SECTION
FOR MEDIUM COST HOUSE
SEOUL, KOREA



ONDOL HEATING SYSTEM

DRAWING 2

9.0 HOUSE AND URBANIZATION DESIGN

The size of houses within reach of the different income groups may be summarized as follows:

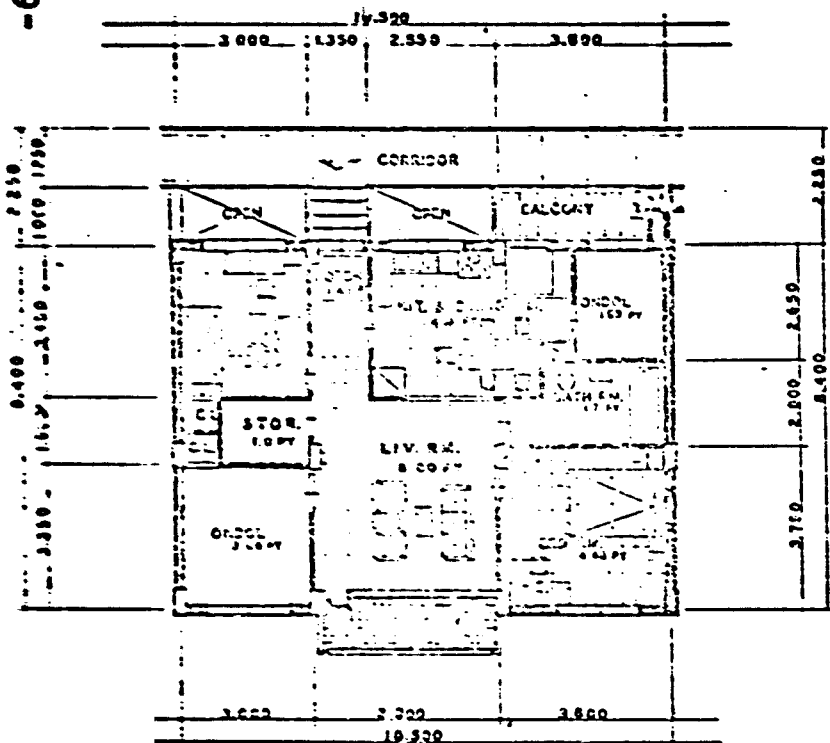
<u>Program</u>	<u>House Area</u>
Slum erradication programs	20-40 M 2
Low income groups	40-50 M 2
✓Medium income groups	60-70 M 2
High income groups	Over 120 M 2

Refer to attached floor plans, on page 64 and 65.

The average lot size varies from 2 1/2 to 3 1/2 times the area of construction.

All plans and calculations must be made by registered professional architects and engineers according to government regulations.

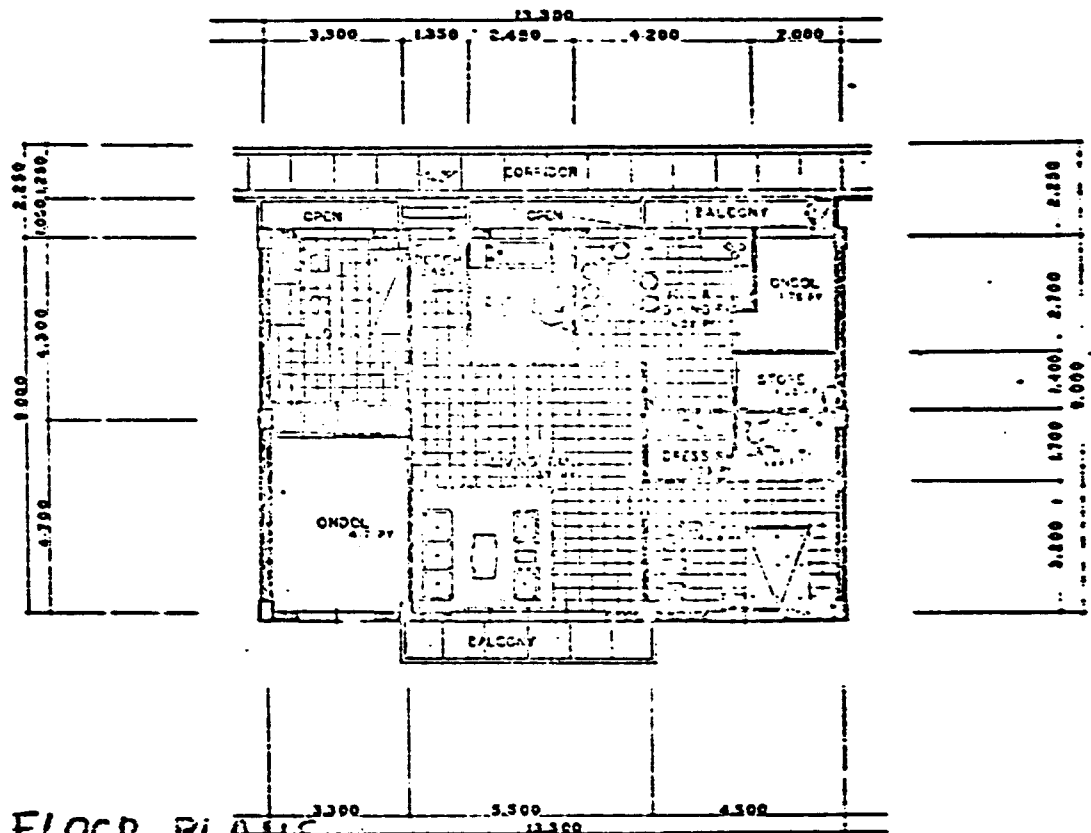
-64-



TYPICAL FLOOR PLANS

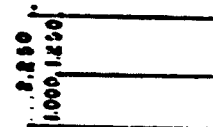
B TYPE UNIT PLAN
100 M² 30.2 PY.

SCALE = 1:50



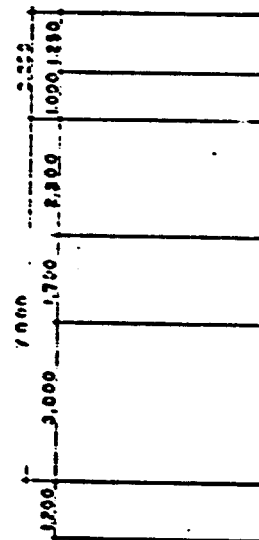
A TYPE UNIT PLAN
125 M² 40.5 PY.

SCALE = 1:50



TYPICAL FLOOR PLANS

Hot water
Central heating
Asphr & Tile



SCALE = 1:50

10.0 WATER, SEWAGE DISPOSAL, ELECTRIC POWER

10.1 Water

The Water Department of the City of Seoul is in charge of the construction, supply and maintenance of water for the city. The city plans to extend its program of construction of water systems to serve the communities located beyond the 15 Km. circle in the next ten years.

TABLE 21
Water System Improvement Plan (City of Seoul)

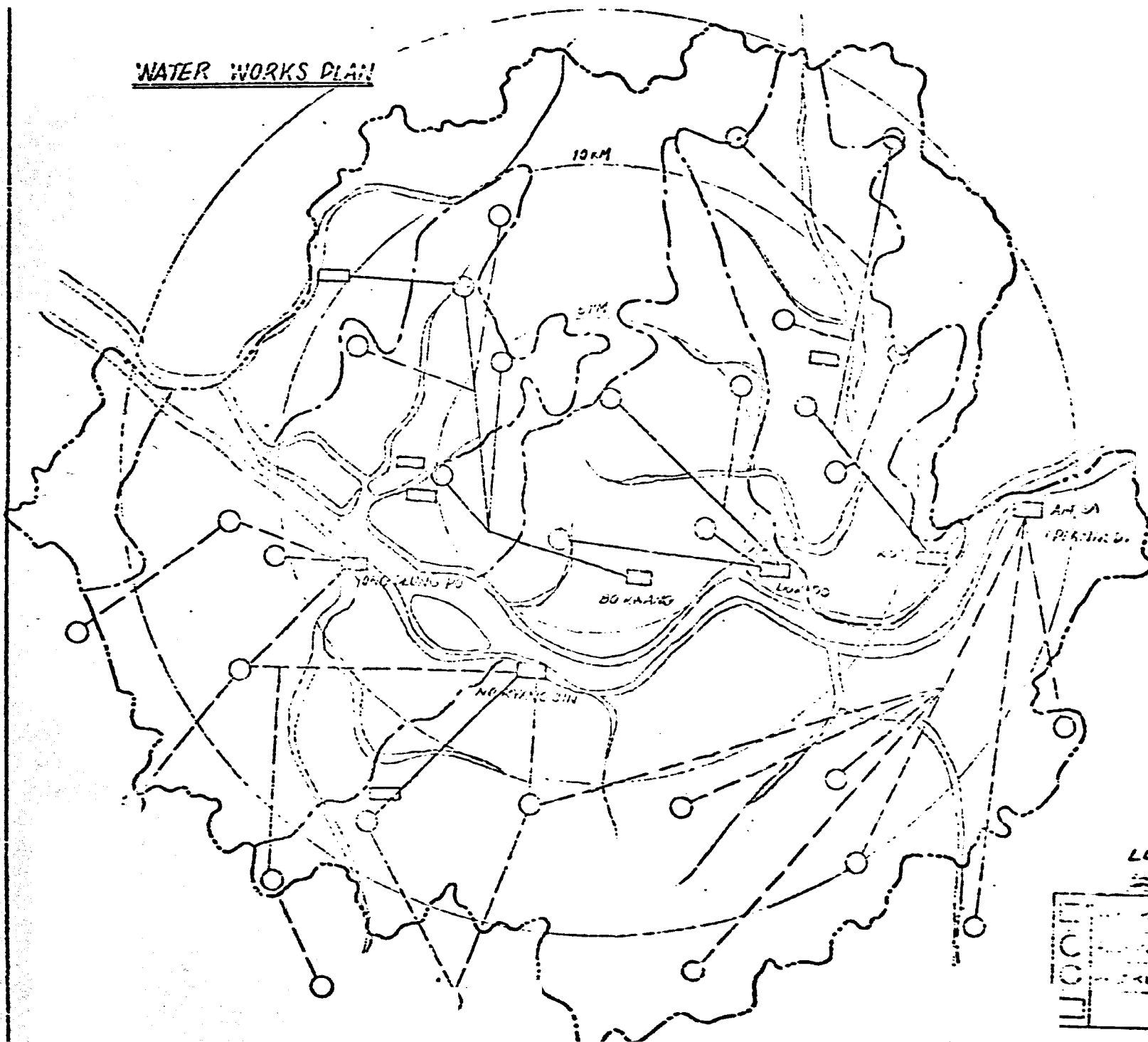
<u>Year</u>	<u>Population</u>	<u>Percentage Served</u>	<u>Average Daily Consumption per Capita Served</u>	<u>Daily Water Supply</u>
1970	5,509,000	87%	249 lit.	1,110,000 m ³ /D
1981	7,500,000	95%	420 "	3,340,000 "
1991	7,600,000	97%	540 "	4,780,000 "

See attached map for location of main water plants and reservoirs in the Seoul area, on page 67.

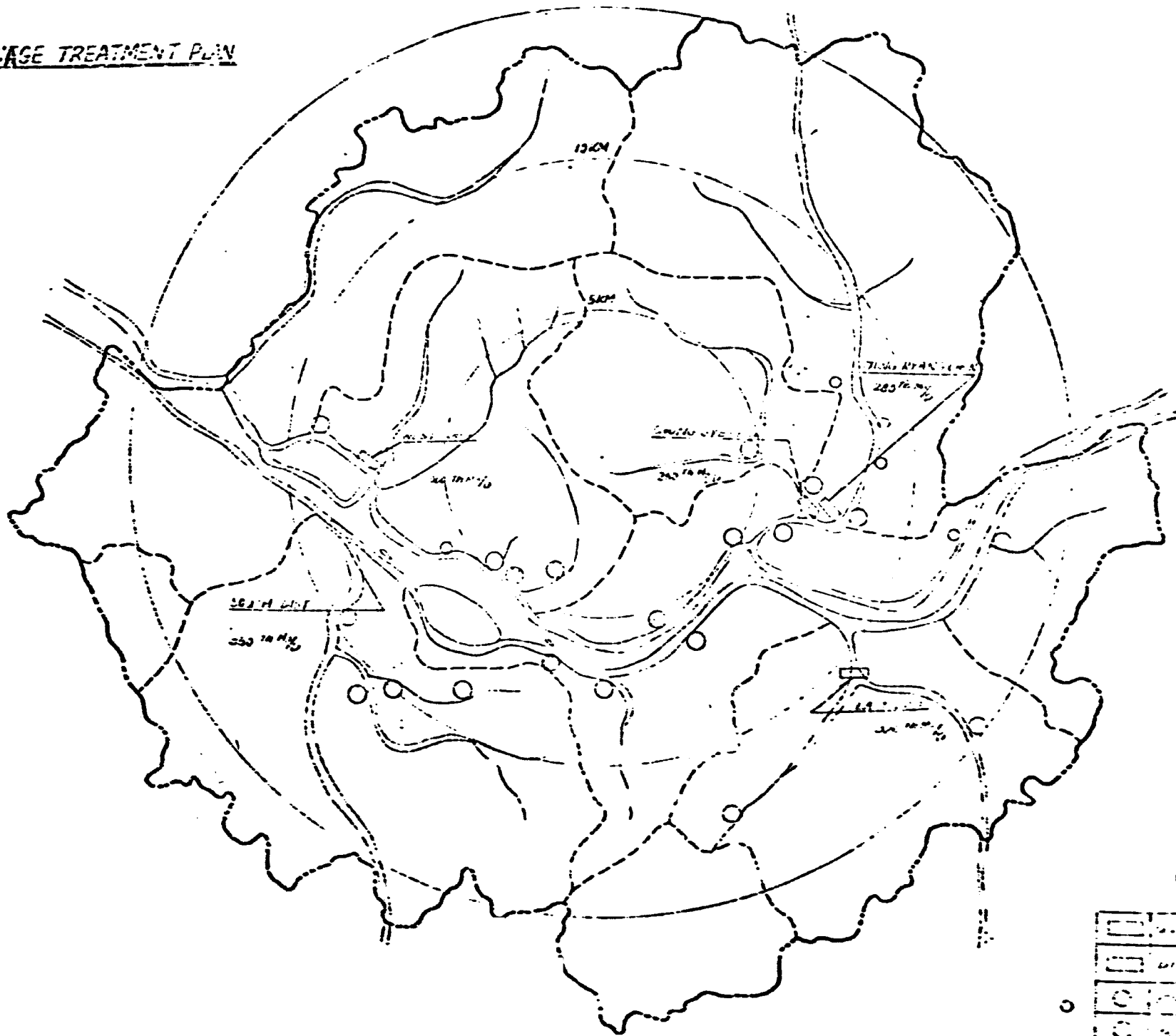
10.2 Sewerage

The City is in charge of the construction, provision and maintenance of the sewerage system for Seoul. Plans have been prepared for completion of the sewer system to serve the communities located within the 15 Km. radius in the next twenty years. See attached map for location of sewage treatment plants, on page 68.

WATER WORKS PLAN



SEWAGE TREATMENT PLAN



LEGEND

	SEWAGE COLLECTION PIPE
	SEWAGE TREATMENT PIPE
	MANHOLE
	WELL

TABLE 22
Construction of Sewerage Facilities and Improvement Programs (City of Seoul)

A. Collection System

Total Plan 5,000 Km Pipe and concrete box culvert

<u>Year</u>	<u>Completion</u>
1970	1,454 Km (27%)
1981	4,250 Km (85%)
1991	5,000 Km (100%)

B. Sewage Treatment Plan

Plan : 5 Plants
Existing : 1 Plant (Under construction)
Drainage area: 56 Km²
Capacity : 250,000

C. Nightsoil Disposal Plan

Plan : 4 Places
Existing: 1 Place (Under construction)
*Sungsan Nightsoil Disposal Plan
Disposal capacity: 60 Klit./D
(for 750,000 persons)

10.3 Electricity

TABLE 23
Electrical Power and Consumption (Korea)

<u>Year</u>	<u>National Consumption (000,000 KWH)</u>	<u>Per Capita Consumption (KWH)</u>	<u>Supply (000,000 KWH)</u>	<u>Installed Power Cap. (000,000 KW)</u>
1966	3,008	103	3,885	1,069
1976	23,000	646	27,278	5,035
1986	71,400	1,756	78,546	16,085

The supply of electrical power presents no particular problem for a program of the magnitude proposed in this report.

10.4 Reference Material

- Outline of Seoul City Plan
Bureau of City Planning
Seoul Metropolitan Gov't. Reference No. 12
- Master Plan for Yoido & Han
Rivers Side, Seoul Korea
Seoul Metropolitan Gov't. Referanent No. 13

11.0 CONSTRUCTION COSTS

11.1 House and apartment construction

11.1.1 Case 1 (house)

Tong-Yang Construction and Engineering Co. provided information on various aspects of the housing units which the company plans to build in Shindo-Myon. The site is about 30 minutes by car from downtown Seoul. The house planned is a typical example of current construction in Seoul, as follows:

- a) Area of Construction 50 to 66 M²
- b) Area of lot 210 M²
- c) Design specifications: 2 bedrooms, multiple use living room, ondol heating, kitchen, one bath, expandable house concept.
- d) Construction specifications: See Drawing, pages 41 and 42.
- e) Selling Price:

1. Cost of land, streets, preparation of ground, fill, electricity (house)	\$1,480 (\$7.00/M ²)
2. Cost of water and sewer systems	400
3. House construction	4,300 (\$75/M ²)
4. Indirect costs and overhead	<u>900</u>
Sub Total	\$7,080
5. Profit 10%	<u>700</u>
Selling Price	<u>\$7,780</u>

f) Special considerations:

The quoted amount of \$7,780 was calculated by Tong Yang assuming that the items listed below are not included in the selling price:

1. Paving of streets by City.
2. Construction of electric net;-street illumination to be provided by Korea Electric Co.
3. Provision of water and sewer mains to site boundary to be provided by City.

11.1.2 Case 2 (house)

Daili Lumber Co., is currently building 200 houses in the Gae-Bong-Dong district about 35 minutes by car from downtown Seoul. The Company plans to build about 2,000 houses in the project. Three (3) basic designs are offered as follows:

<u>Type</u>	<u>Area of lot</u>	<u>Area of Construction</u>	<u>Land Cost at \$13/M²</u>	<u>Construction Cost</u>	<u>Selling Price</u>
A	290 M ²	89 M ²	\$3,770	\$5,880 (\$66/M ²)	\$ 9,650
B	310 M ²	89 M ²	\$4,030	\$5,970 (\$64/M ²)	\$10,000
C	300 M ²	82 M ²	\$3,900	\$6,200 (\$75/M ²)	\$10,100

- a) Design specifications: 2 and 3 bedrooms, living room, kitchen, one bath, dining room, patio, terrace.
- b) Construction specifications: Cement block walls, tile roofs, finished floors (Terazo, mosaic), finished walls (paint) plywood, wall paper), wood windows and doors, hot water pipes for heating, radiator in living room, finished ceilings (wall paper, oil paint).

- c) Selling conditions: 12% upon selling of contract; 23% 45 days after signing contract; 23% 90 days after signing contract; 52% upon occupancy.

Refer to Reference No. 1

11.1.3 Case 3 (apartments)

The City of Seoul is building 1,584 apartments in Yeoido Island. The apartments are all sold and will be ready for occupancy in November 1971. Construction was bidded by local firms. Eleven contractors were selected. Total time of construction: one year.

- a) Apartment area 50; 66; 100; and 160 M².
b) Apartment building: 12-13 stories; approximately 100 units in each building.
c) Design specifications: Refer to Reference No. 16
d) Construction specifications: reinforced concrete structure, slab floors, concrete block walls, finished floors (asphalt tile), painted walls, finished ceiling, phone, TV antenna.
e) Facilities: schools, library, gym, green areas, parks, playgrounds, health center, police, fire station, parking.
f) Selling price, including land, urbanization and construction:

<u>Area of Construction</u>	<u>Total Cost</u>	Down Pymt. Upon Signing of Contract	<u>Selling Conditions</u>	
			<u>6 Payments Every 2 Months</u>	<u>1 last payment 13 months after signing contract</u>
50 M ²	\$ 6,500	\$ 650	\$ 650	\$1,950
66 M ²	8,550	855	855	2,565
100 M ²	12,900	1,290	1,290	3,870
125 M ²	17,500	1,750	1,750	5,250

Refer to Reference No. 16.

11.1.4 Case 4 (house and apartments)

According to data furnished by the Ministry of Construction, the cost of various types of housing in the Seoul area are:

Data for Houses

<u>Type of Dwelling</u>	<u>Area of Lot</u>	<u>Area of Construction</u>	<u>Cost of Land & Urbanization</u>	<u>Cost of Construction</u>	<u>Total Cost</u>
Low Cost House <u>1/</u>	80 M ²	40-50 M ²	\$1,120 (\$14/M ²)	\$2,800 (\$56/M ²)	\$3,920
Medium Cost House <u>1/</u>	165 M ²	66 M ²	\$2,970 (\$18/M ²)	\$4,290 (\$65/M ²)	\$7,260
High Cost House	330 M ²	200 M ²	\$15,180 (\$46/M ²)	\$20,400 (\$102/M ²)	\$35,580

1/ Ondol heating, outside latrine, one water point

For apartment housing the Ministry of Construction provided the following information (See Reference No. 17):

Data for apartments

<u>Type</u>	<u>Area of Construction</u>	<u>Total Cost</u>
"Market" apartments	66 to 178 M ²	\$8,600 to \$25,000
Condominium apts.	29 to 82 M ²	\$4,300 to \$14,000
(idem)	110 to 148 M ²	\$17,000 to \$21,500
(idem)	180 to 210 M ²	\$26,700 to \$39,000

11.1.5 Case 5 (houses and apartments)

According to data furnished by the Korean Housing Corporation (KHC), the average costs of dwelling units built by KHC in 1970 in several projects are:

<u>Type of Dwelling</u>	<u>Area of Construction</u>	<u>Total Cost per unit</u>
Low Cost Homes	43 M ²	\$3,600
Medium Cost Apartments	43 to 66 M ²	\$8,140 to \$10,800
Higher Cost Apartments	86 to 198 M ²	up to \$35,000

11.2 Cost Analysis

11.2.1 Land

The average cost of land in selected Seoul areas, including urbanization and land improvement work (streets, water, sewerage, electricity) may be calculated as follows:

Table 24

Average cost of land (districts)

<u>Location</u>	<u>Price per M²</u>
Shindo Myon	\$ 7.00
Gae Bong Dong	\$13.00
Yeoido	\$15.00
Bampo	\$17.60

The average cost of land in relation to distance from downtown Seoul, including the cost of urbanization work, may be calculated as follows:

Table 25

Average cost of land (distance from downtown)

<u>Distance from Downtown</u>	<u>Price per M²</u>
5-10 kms	\$46.70 and up
10 kms and more	\$9.25 to \$18.50

11.2.2 Housing construction

Average cost of construction for houses in Seoul may be calculated as follows:

Table 26

Average cost of Construction in Seoul (houses)

<u>Type of construction</u>	<u>Area of Construction</u>	<u>Cost per M²</u>
Low cost housing	40 to 65 M ²	\$55 to \$70
Medium cost housing	65 to 90 M ²	\$75 to \$80
High cost housing	over 90 M ²	over \$95

11.2.3 Apartment construction

The average cost of apartments in Seoul may be calculated as follows:

Table 27

Average cost of Construction in Seoul (apartments)

<u>Type of construction</u>	<u>Area of Construction</u>	<u>Cost per M²</u>
Low Cost apartments	37 to 45 M ²	\$45 to \$58
Medium cost apartments	50 to 100 M ²	\$75 to \$80
High cost apartments	over 130 M ²	\$110 to \$150

11.3 Reference Material:

- | | |
|--|--------------------------|
| 1. Price list of construction materials. | Appendix No. 2 |
| 2. Unit cost of selected construction items. | Appendix No. 3 |
| 3. Average cost of utilities. | Appendix No. 4 |
| 4. Average cost of equipment rentals. | Appendix No. 5 |
| 5. Average construction labor wages. | Appendix No. 6 |
| 6. Construction costs for Korea. | -Reference No. <u>18</u> |

12.0 INTERIM FINANCING

Because of the peculiarities of the Korean housing market, most developers limit their interim financing as much as possible and maximize use of purchasers' deposits and pre-payments. However, construction financing can be made available from the Korea Housing Bank or from other commercial banks at a face rate of 24%. The real cost of short-term bank loans is usually significantly higher--perhaps 30% because of various commissions and other charges. Banks also have the tendency to set up short-term loans so that penalty interest payments (an additional 50% of the given rate) fall due if the note is not paid off significantly in advance of the due date.

13.0 LOCAL REGULATIONS

13.1 Approval of Projects

The sectional office of the Seoul Metropolitan Government is in charge of reviewing all construction plans and specifications and of issuing the respective approvals and construction permits.

The sectional office has 40 typical house plans for small houses (50 - 60 M²) which sells for \$1.50 to interested owners. The usual architects fee for plans is \$615.

The owner of the project or his representative (architect, builder, developer) must furnish the following information to the city for securing a building permit:

- 1) Name of registered architect and resident engineer in charge of design and inspection. (There are about 500 registered architects in Seoul and about 900 registered builders in the Republic.)
- 2) Area of construction, ratio of building area to lot area.
- 3) Evidence of compliance with local zoning regulations.
- 4) Land title.
- 5) Architectural and engineering plans and calculations for construction and urbanization.
- 6) Construction and urbanization specifications.
- 7) Estimates and sales plan.

The process of approving plans by the City takes about 4 days. City inspectors conduct periodic checks of ongoing construction to assure compliance with city regulations and provisions.

The building permit fee for an average house costing around \$15,000 is \$37.00. The builder has to place a deposit (refundable upon termination of the construction) of \$2.80 per M² of construction area. There is no fee for connection of house to water and sewer mains.

13.2 Zoning Regulations.

Refer to City of Seoul Plan, Reference No. . 12 for zoning areas.

Interpretation of zones in map of city:

<u>Zoning Area</u>	<u>Color</u>
Parks and Playgrounds	Blue
Housing, Residential	Yellow
Light Industrial	Lilac
Office and Commercial	Red

13.3 Building Codes.

The City of Seoul is preparing a building and construction code.

Other codes and regulations in effect in the country:

- City Planning Law (Seoul)
- Construction Law (National)
- Fire Prevention Law (National)
- Public Housing Law (National)

13.4 Bonds.

The usual procedure is for the owner to require the builder to post a guaranty bond for 10% of the cost of the construction against construction defects for one year. The Association of Architects and Engineers issue such bonding to its members.

14.0 CUSTOMARY FACILITIES

14.1 Schools

The Municipalities are willing and, in effect, do provide for the construction of public schools in land donated or sold by the Sponsors. The cost of the construction of such facilities is not charged to the selling price of the houses.

14.2 Parks and Playgrounds

The Sponsors must provide areas for parks and playgrounds according to the Public Housing Law and regulatory Presidential Decree. The cost of the facilities is charged to the project.

14.3 Places of worship.

It is not customary to provide land for churches.

14.4 Shopping Centers.

It is not customary to provide land for shopping centers. However, in recent high rise apartment projects there was noted a combination of first floor stores facing the street with apartments in the upper floors.

14.5 Community centers.

Not customary.

15.0 CUSTOMARY UTILITIES AND SERVICES

15.1 Utilities:

Water, sewer, electricity, illumination of streets, telephone, TV antennas (high rise)

15.2 Services:

Garbage collection, maintenance of streets and public utilities, post office, fire stations, police protection, schools

15.3 Cost of utilities and services.

Table 28

Average Cost of Utilities in Seoul
For a Family of Six Members Living
In a Three Bedroom House (50 - 70 M²)

<u>Description</u>	<u>Unit Price</u>		<u>Average Cost</u> <u>Per Month</u>	
	<u>\$</u>	<u>Won</u>	<u>\$</u>	<u>Won</u>
1. Water	0.03	10 won per M ³	0.92	300 won
2. Electric	0.025	8.25 won per Kw	12.40	4,000 won
3. Gas	0.12	40 won per M ²	4.60	1,500 won
4. Telephone	0.005	4 won per call	4.60	1,500 won
5. Garbage		_____	0.61	200 won
6. Bus, within 10 Km		\$0.005 (15-25 won)		

15.4 Public Transportation

Bus is the most accepted means of public transportation in Seoul. The equipment seemed to be in fairly good condition, although traffic jams are common at peak hours. The buses are crowded, and complaints are frequent about service to outlying areas. The City is constructing a subway system. No information available for completion of the lines.

16.0 AVAILABILITY OF LAND

Land is the most important single cost element in housing in Seoul. It can represent one-third to one-half of the price of a single-family home.

16.1 Ownership of Land

Ownership of land in the outlying and as yet undeveloped sections of the metropolitan Seoul area still appears to be for the most part in multiple ownership, primarily by farmers. However, south of the Han River, in the main direction of city growth, there appears to have been considerable land assembly by a few large-scale speculators.

As also was indicated, both the City of Seoul and KHC have substantial land reclamation programs under way. The City has acquired substantial land south of the Han River for future development.

16.2 Customary Methods of Acquiring Land for Development

Discussions with developers of major tracts outside the City of Seoul disclosed the following lands available for project developments:

- 180 Acres about 5 miles from downtown, purchased in 1964 from a speculator who had himself bought it at auction from Seoul City four years previously. Price undisclosed.

- 46 Acres in same area purchased in 1964 from various members of a single family.

- 86 Acres about 10 miles from downtown, purchased through agents over three years from more than 100 individuals. Price rose during this time from 40 cents to \$2.80 per M^2 .

In the above case the developer estimates urbanization will cost him \$4.67 per M^2 ; urbanized lots sell for \$14 per M^2 .

-470 Acres for a new town 46 miles from Seoul along the Seoul-Pusan Expressway, purchased directly over two years from 350 owners. Two-thirds of the land was not in use, the balance mostly in orchard. Prices quadrupled during the negotiating period from 33 cents to \$1.40 per M².

16.3 Physical characteristics of the available land.

Available land within a six mile radius of the city's center are either expensive hill-side sites requiring extensive terracing or public-sponsored reclamation projects.

The reclamation sites are filled with river bed gravel and sand are level, and are ready for development. (Yoido and Bampo.)

Outlying available suburban land, mostly in agricultural use, consists of river bottom paddy fields or, somewhat farther out, slightly rolling land. (Noonsan)

Geologically the Han River valley widens in the area of Seoul, forming mounds or alluvial deposits. Other low hills or mounds are formed of granite, of granite gneiss and crystalline schist, or of deteriorated aqueous rocks--the latter two groups of Pre-Cambrian origin.

16.3.4 Source: Master Plan for Yoido and Han River Side
Reference No. 13.

✓ 16.4 Tax Policy

Four taxes are levied on land by Korean governmental agencies: acquisition tax and real estate tax by local governing bodies, a registration tax and anti-speculation tax by the central government,

16.4.1 Acquisition tax - 2% of the sales price of the property, as evaluated by the taxing agency.

✓ 16.4.2 Property tax - 0.2% of the assessed valuation of the land, 0.3% on buildings. Assessment at approximately 100% of value.

16.4.3 Registration tax - 1.5% of governmental estimated sales price of peroperty (1% for farmland or for gifts, 0.5% in the case of inherited land.) Cities, Korea Housing Corp. and other public agencies are exempt from the tax.

16.4.4 Anti-Speculation tax - effective January 1, 1968, in order to control real estate speculation by taxing 50% of the seller's profit on the sale of land or on that part of the sales price of property attributable to the land.

The tax is applied within the administrative limits of the country's six largest cities and along a corridor 4 km. on either side of the Seoul-Pusan expressway.

✓ In applying the tax the Ministry of Finance first estimates what in its belief the sales price of the property should have been, for the land and for the improvements.

(An appeal procedure is established in the event the actual sales price is less than the government estimate.)

From this estimated sales price for land, the following deductions are made:

-The government estimate of the price the seller paid for the land when he purchased it.

-actual expenses of land transfer.

-10% of the price paid for the land for every year the land has been held.

The net proceeds after this calculation are taxed 50%.

A number of sellers are exempt from the tax: public bodies, foreign embassies, sellers of land needed for city planning purposes, sellers of individual home sites where the lot does not exceed 10 times the area of the improvement, agricultural land held by farmers for more than eight years, land for education or for the transfer of new factories.

The ROK regards this tax as a major deterrant to land speculation.

Table 29 Index of Land Prices

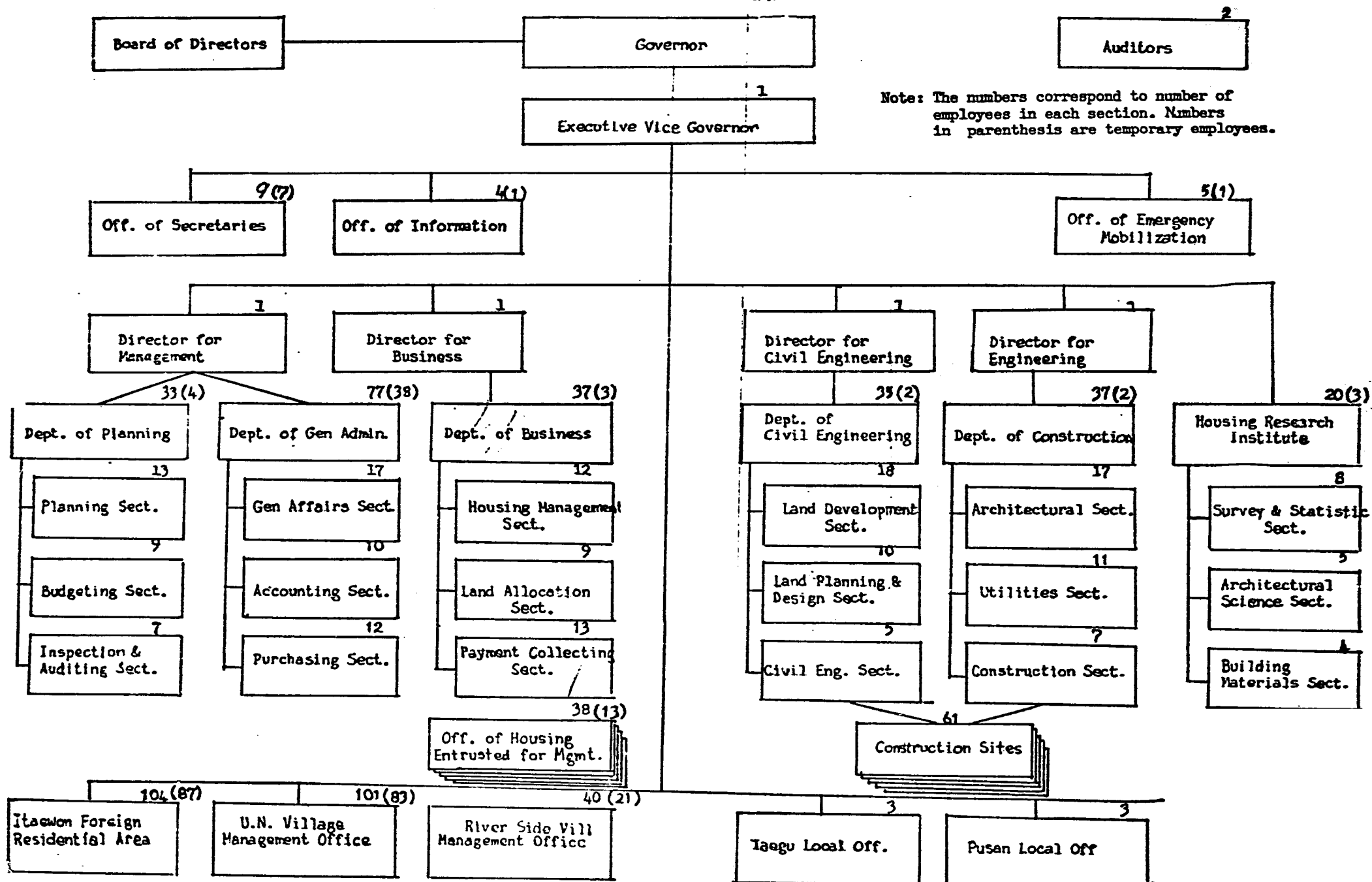
<u>Date</u>	<u>Increase(%)</u>	<u>Seoul</u>	<u>Increase(%)</u>	<u>Pusan</u>	<u>Increase(%)</u>	<u>Non-taxed Areas</u>
Jan. 1966		100		100		100
	43.8		25		22	
Jan. 1967		143.8		125		122
	42		7.4		23.1	
Jan. 1968		204.2		133.8		150.1
	5.6		11.2		10.6	
Jan. 1969		215.4		150.1		166.2
	8.7		24.3		9.4	
Jan. 1970		234.4		187.2		180
	60.5		33.6		10.5	
July 1970		376.7		280.6		199.9

The above table indicates a sharp drop in the increase of land prices after the tax was made effective in 1968; however there may also be other reasons. Government controls slowed down property transfers palpably during 1968, and speculative activity was curtailed as a result of lack of confidence following the North Korean commands raid on Seoul and the Pueblo incident. The 60.5% increase in land prices in Seoul during the first six months of 1970 is directly attributable by Ministry of Finance sources to speculative activity in connection with the city's land acquisition program south of the Han River.

Actually the ~~tax~~, which brought in only 1% of ROK total domestic tax revenues in 1970, appears neither of sufficient magnitude nor so set up as to have a major impact on land prices.

KOREAN HOUSING CORPORATION
ORGANIZATIONAL CHART 1971

APPENDIX No. 1



APPENDIX 2

June 8, 1971

Price List

The Korea Housing Corporation

Remark: 1\$ = 327 won

<u>Item</u>	<u>Size</u>	<u>Unit</u>	<u>Price</u> <u>won</u>	<u>Price</u> <u>\$</u>	<u>Remark</u>
Steel bar		ton	46,000-	141.00	
Cement	42.638	bag	300-		
Oil Paint	exterior	ℓ	557-		
"	interior	"	450-		
Color Paint	exterior	"	532-		
"	interior	"	497-		
Rust Proof Paint		"	502-		
Linde 4 Oil		"	392-		
Block	6" type	each	44-		
"	6" half type	"	26-		
"	6" type	"	29-		
"	6" conor	"	53-		
"	4" type	"	35-		
"	4" half type	"	21-		
Korean Pine		M ³	19,464-		
American Pine		"	25,453-		
Lawan(philipine lumber)		"	32,940-		
Sand (fine)		"	220-		
Sand (coarse)		"	320-		
Gravel	1"	"	1,300-		
	2"	"	980-		
Roofing paper	30	Kg	50.4		
Roofing felt	25	"	22.7		
Roofing felt (special made)	25	"	46.3		
Asfalt		"	20-		
Water Proofing Liquid		ℓ	72-		

<u>Item</u>	<u>Size</u>	<u>Unit</u>	<u>Price</u>	<u>Remark</u>
Metal lath	300	M ²	87.70	
		"	432-	
Coalking Compound			311.10	
Clay Brick		each	9-	
Concrete Brick		"	4.50	
Clay Tile		M ²	7726-	
Mosaic tile		"	420-	
Celamic tile		"	720-	
Asfalt tile		"	731.80	
Terracoata		"	870-	
Concrete pile	3 ^m X 250 ^{mm}	each	3,600-	
"	4" X 250"	"	5,400-	
"	6" X 250"	"	8,400-	
"	7" X 250"	"	9,900-	
"	7" X 300"	"	13,200-	
"	7" X 350"	"	16,500-	
"	7" X 400"	"	20,900-	
"	8" X 350"	"	18,500-	
"	8" X 400"	"	23,100-	
"	9" X 350"	"	21,000-	
"	9" X 400"	"	25,300-	
"	10" X 300"	"	22,300-	
"	10" X 350"	"	25,900-	
"	10" X 400"	"	31,000-	
"	11" X 350"	"	30,000-	

<u>Item</u>	<u>Size</u>	<u>Unit</u>	<u>Price</u>	<u>Remark</u>
Concrete Pile	11 ^m X 400 ^{mm}	each	37,400-	
"	11" X 450"	"	40,400-	
"	12" X 350"	"	34,400-	
"	12" X 400"	"	39,100-	
"	12" X 450"	"	44,600-	
"	13" X 400"	"	47,900-	
"	13" X 450"	"	50,200-	
"	14" X 350"	"	53,100-	
"	14" X 400"	"	53,800-	
"	14" X 450"	"	55,700-	
Clay pipe	D=24 L=60Cm	each	520-	
Concrete pipe	D=24 L=60Cm	"	1,100-	
"	D=60 L=100Cm	"	1,720-	
"	D=75 L=100Cm	"	2,000-	
Asfalt Paving material	#78 Acblase	ton	2,552-	
1. Steel pipe(W)	100 Ø		1,005 Won/	permeter
"	80 "		758	"
"	65 "		581	"
"	50 "		454.58	"
"	40 "		326	"
"	32 "		283	"
"	25 "		231	"
"	20 "		158	"

2. Steel pipe(B)	100 Ø	754Won/ per meter
"	80 "	514 "
"	65 "	393 "
"	50 "	306 "
"	40 "	221 "
"	32 "	192 "
"	25"	154 "
"	20 "	105 "
3.Sluice valve	100 Ø	12,700Won/ per meter
"	80 "	7,500 "
"	65"	5,060 "
"	50 "	2,730 "
"	40 "	2,170 "
"	32 "	1,680 "
"	225 "	1,130 "
"	20 "	870 "
"	15 "	680 "
Lavatory	(565 X 80 X 205)	12,000 Won/ set.
Water closet	(360 X 655 X 360)	23,000 Won/ Set
4. Iron sheet (T=4.5-12 M/M)		75,000 Won/ Ton
5. Angle		57,000 Won/ Ton
6. Steel Plate		58,000 Won/ Ton

7. Insulation pipe cover

Glass wool	15x25 M/M	237 Won/M
"	20x25 "	274 "
"	25x25 "	310 "
"	32x25 "	346 "
"	40x25 "	383 "
"	50x25 "	436 "
"	65x25 "	508 "
"	80x25 "	581 "
"	100x40 "	1,270 "

8. Convector (0.6 M/M x 32 ϕ x 108 M/M x 132each) 2,490 Won/M
 (1.2 M/M x 2R) 4,300 Won/M

9. Flange 100 ϕ 420 Won/each
 80" 300 "
 65" 240 "
 50" 200 "

10. Boiler 1,260,000 Won/ Ton

Conduit pipe	19	M	63
"	25'	"	79
"	31"	"	98
"	39"	"	117
"	51"	"	157

Wire	IV 1.2	M	12
"	1.6	M	19
"	2.0	"	28
"	7/1.0	"	53
"	7/1.2	"	76
"	7/1.6	"	136
"	7/2.0	"	206
"	7/2.3	"	266
"	7/2.6	"	340
"	19/1.8	"	452
"	19/2.0	"	553
"	19/2.3	"	727
"	19/2.6	"	919
"	19/2.9	"	1,136
"	37/2.2	"	1,389
"	37/2.6	"	1,771
IV Cable 2C	7/1.0	M	179
"	7/1.2	"	235
"	7/1.6	"	374
"	7/2.0	"	550
"	7/2.3	"	703
"	7/2.6	"	873
"	19/1.8	"	1,253
"	19/2.0	"	1,397

IV Cable 20	19/2.3	M	1,790
"	19/2.6	"	2,303
"	19/2.9	"	2,832
"	37/2.3	"	3,427
"	37/2.6	"	
SW Box with cover		each	95
"	"	"	75
Con Box	"	"	185
"	"	"	210
Outlet	"	"	120
"	"	"	125
Temblet SW 1P		"	87
Concent (double)		"	97

Wages

Carpenter	830
Mason	590
Concrete worker	490
Steel worker	650
Painter	700
Plaster	660
Labor	430
Plumber	670
Sheet metal worker	560
Insulation worker	700

Heavy Equipment rent

Concrete Mixer	per hour	900 Won
Dozer	"	4,300 "
Winch	"	85 "
Deazel hammer	"	2,650 "
Crain (20 T)	"	3,200 "
Dump Truck (6 T)		1,450 "

APPENDIX 3AVERAGE COST OF SELECTED CONSTRUCTION ITEMS
KOREA -- SEOUL AREA

Item	Unit	Material		Labor		Total	
		Won	\$	Won	\$	Won	\$
Concrete Mix	M ³	4055	12.40	450	1.38	4,505	13.78
Steel Bars	ton	46,770	143.30	4,585	14.00	51,355	157.30
Steel Rein- forced Concrete (light)	M ³	9,670	29.70	980	0.30	10,650	30.00
6" wall block	M ²	710	2.10	165	0.49	875	2.59
8" wall block	M ²	875	2.70	180	0.55	1,055	3.25
Clay burned brick wall	"	2,180	6.50	290	0.90	2,470	7.40
Cement brick wall	"	990	3.00	290	0.90	1,280	3.90
Cement Mortar	"	90	0.28	155	0.47	245	0.75
Mosaic Tile	"	590	1.80	340	1.05	930	2.85
Ceramic Tile	"	935	2.90	320	1.00	1,255	3.90
Oil Paint	M ²	120	0.39	60	0.18	180	0.57

SOURCE: KOREA HOUSING CORPORATION
JUNE 1971

NOTE: \$1 = 326 Won

APPENDIX 4

AVERAGE COST OF UTILITIES IN SEOUL
FOR A FAMILY OF SIX MEMBERS LIVING
IN A THREE BEDROOM HOUSE (50 - 70 M²)

Des	Description	Unit Price		Average Cost Per Month	
		<u>\$</u>	<u>Won</u>	<u>\$</u>	<u>Won</u>
	1. Water	0.03	10 won per M ³	0.92	300 wpn
	2. Electric	0.025	8.25 won per Kw	12.40	4,000 won
	3. Gas	0.12	40 won per M ³	4.60	1,500 won
	4. Telephone	0.005	4 won per call	4.60	1,500 won
	5. Garbage		—	0.61	200 won

APPENDIX 5

AVERAGE COST OF CONSTRUCTION

EQUIPMENT RENTALS

KOREA, SEOUL AREA

<u>EQUIPMENT</u>	<u>RATE</u>	<u>WON</u>	<u>\$</u>
Concrete Mixer	per hour	900	2.75
Dozer (heavy)	"	4,300	13.30
Winch	"	85	0.38
Deazel hammer	"	2,650	8.15
Crane (20 T)	"	3,200	10.00
Dump Truck (6 T)	"	1,450	4.45

SOURCE: KOREAN HOUSING CORPORATION
JUNE 1971

APPENDIX 6

AVERAGE CONSTRUCTION LABOR WAGES

KOREA, SEOUL AREA

<u>TRADE</u>	<u>WON/DAY</u>	<u>\$ / DAY</u>
Carpenter	830	2.55
Mason	590	1.80
Concrete worker	490	1.50
Steel worker	650	2.00
Painter	700	2.15
Plaster	660	2.00
Labor	430	1.30
Plumber	670	2.00
Sheet metal worker	560	1.70
Insulation worker	700	2.15

SOURCE: KOREAN HOUSING CORPORATION
JUNE, 1971

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The Institute of Social Science, Chung-Ang University. Research Project
USOM-EPB

✓ 1970 Report on Wage Survey.

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Monthly Statistics of Korea, publ. Economic Planning Board

✓ The Kye System in Korea's Unorganized Money Market: An Analysis and
Policy Recommendations - undated, by James C. Saber, San Francisco
State College, and Nam Yong Choi, Pacific Vegetable Oil Co.

Life in Urban Korea, issue of Transaction, vol. KLVI, 1971, publ. Royal
Asiatic Society, Korea Branch

+ The Korea Housing Bank, Its Functions and Activities, annual reports for
1969, 1970, and 1971

✓ Korea Housing Corporation, annual report 1970.

"Housing Problems in Urban Korea," by Chung-Hywn Ro, Director, Institute
of Urban Studies, Yonsei University, 1969

APPENDIX NO. 8

LIST OF OFFICIALS AND INSTITUTIONS INTERVIEWED

1. United States Mission to Korea

Mr. Michael H. B. Adler, Director
Mr. Thomas F. Olmsted, Assistant Director, Economic Affairs
Mr. Marvin J. Winship, Trade and Investment
Mr. Rufus Long, Banking Advisor
Mr. Louis A. Gattoni, Research Advisor

2. ROK and Official Agencies

Ministry of Finance

Mr. Nam Duck Woo, Minister of Finance
Mr. Kim Dong Il, Assistant Chief, Second Finance Section
Mr. Choi, Director, Office of Direct Taxes
Mr. Lee, Deputy Director, Office of Direct Taxes

Economic Planning Board

Mr. Kimm Joo Nam, Assistant Vice Minister

Ministry of Construction

Mr. Jung Kyun Chang, Deputy Chief, Housing Division
Mr. Kahn

Municipality of Seoul

Mr. Jong Wan Choi, Vice Mayor II
Mr. Yu Pyong Hwa, Chief, Bureau of Construction
Mr. Oh Sang Nak, Bureau of Construction
Mr. Kim Chong-Kun, Department of City Planning
Mr. Lee Ul Siam, Bureau of Planning and Budget

Korea Housing Bank

Mr. Nam Kwun Paik, President
Mr. Park Si Hun, Vice President
Mr. Chae Hun Kim, Director
Mr. Ghimn Sirh Hiern, Economist

Korea Housing Corporation

Mr. Choi Noo Yong, Governor
Mr. Won Tae Lee, Director
Mr. Lee Chul Pyo, Director, Research Department
Mr. Pil Kyoan Kim, General Manager, Riverside Village
Mr. Sung Eup Lim, Architect

3. Private Sector, Korean Institutions

Chin Yang Department Mansion Co.

Mr. Chun Yong Joon, Managing Director

Chosun Engineering Co.

Mr. Kim Jin Hyung, President

Dae Lim Concrete Products
Mr. Bong Hi Lee, President

Daili Lumber Co. Ltd.
Mr. Ki Mok Lee, Vice President, 2801-2807
Mr. Choe P. Sun, Manager
Mr. Chong Ko Yoon, Duty Assistant Manager, 24-24-3901-9, Ext. 339

Hyundai Construction Co. Ltd.
Mr. Chung, In Yung, President, Tel Switch 287221
Mr. Joon Shik Kim, Director, Tel 22-3963 1926, Switch 28-7221

Kum-Ah Industrial Co.
Mr. Tuck Ho Yoo, Vice President, 22-3476

Sampoog Construction Co.
Mr. Lee Jung Bae, Vice President, Tel. Off. 26-0188-1181-9
Mr. Kwan Lee, Architect Chief, Tel. Off. 26-0187, Ext. 334
Mr. Kim Ok Keun, Executive Director, Tel 26-0187-1191-9

Seoul Unified Engineering Dev. Corp.
Mr. Sah, Chun Hong, President, Tel 229082, 232569, 288362
Mr. Myung Hwan Lee, Superintendent

Tong Yang Group
Mr. Yang Koo Lee, Chairman of the Board
Mr. Jay J. Park, Office Manager, Tel. Off. 43-5011-6610
Park Sang Won, Assistant to Chairman

4. Private Sector - American and Joint Ventures

Dillingham Corporation
Mr. John R. Jensen, Vice President-Property Development, 946-0771
Mr. Egan Mshimoto, Vice President, 946-0771
Mr. Yoon S. Cho, Manager of Seoul Office, 23-8636

Korea Capital Corporation
Mr. Paul Charles McGann, President

Trans Asia Engineering Associates Inc.
Mr. Kyu Lee, Vice President, Tel; Yongsan 3209, 3478, 6911, Seoul 42-3885
Mr. W. Gifford Cheesman, Assistant Secretary, 3209, 6911, Seoul 42-3885,
42-1595

Russell Associates
Mr. Chong C. Kang, President, 24-3801-6, Ext. 1211

WACO Engineers and Associates
Mr. George W. Ward, General Engineer CO Owner, 42-3860
Mr. Harold G. Elkins, " " " " " , 42-3860

5. Universities

Korea Institute of Science and Technology

Mr. Hyung Man Kim, Head, City & Regional Planning Group, Tel 94-0140-9

Seoul National University

Mr. Hyung-Kul Kim, Professor, College of Engineering

Mr. Hiram J. Walker, Fullbright teaching assistant, Urban and
Regional Planning

Sogang University

Mr. Luke Jinchang Im, Ph. D., Associate Professor, Tel. 32-0141-9

Yonsei University

Chung-Hynn Ro, Dean

Mr. Lee, architect

APPENDIX 9

AID HOUSING SURVEY TEAM

Observations and Recommendations by Robert J. Murphy, Jr.

The Housing Survey Team has, during the past three weeks, made an extensive study of the housing problems in Korea. They have reviewed the many government and private housing programs that ~~now exist~~ and the manner in which they are financed. It seems obvious that most current housing is created for the high income group, at their own expense without financing. The second largest effort is made for the very low income group, which is very substantially subsidized. The great vacuum in the creation and financing of housing appears to be for the, more or less, middle income group. Government agencies such as the Korea Housing Bank and Korea Housing Corporation do not appear to be creating or financing more than 10% of all housing starts. The 90% balance is provided by the private sector primarily for the benefit of the high income group, and even the Government Programs tend to run now largely to the high income group since this is more profitable and the capital is provided by the purchaser.

Briefly, as a result of our study, we are confident that an AID program is desirable and workable in Korea, but it should be designed toward financing housing for the middle and low middle income group. The Housing Team report will be forthcoming for review by AID Mission and AID Washington.

Our major concern in such an AID Program - if approved - is to be assured that the funds provided mainly from the private sector in the U. S. such as savings and loans through AID and the Korean government will be made available competitively to both government and private sector housing efforts on a best project, best cost basis.

The second part of the housing team's assignment was somewhat more difficult. In essence, we were asked to make recommendations as to how the flow of Korean capital for the financing of homes might be improved, so that more housing might become available to more

Koreans on a long-term mortgage basis within the limitations of their individual affordability and job stability.

Our first reaction was that there is no well-defined consistent program for housing, nor any awareness on the part of the public as to the advantages of saving, nor any real hope that they can avail themselves of a decent home on a straight-forward simple economic basis.

Secondly, it is extremely difficult to distinguish in function the five wholly owned government commercial banks or the other partially but substantially government-controlled commercial bank, except that government banks have been assigned specific functions such as; 1) to put their money in housing; 2) to finance large industry; 3) to handle the exchange problems, and so on. Actually, these banks are all strictly commercial banks. They derive their capital in almost exactly the same manner. They deposit in one another as instructed in accordance with the priorities of the Korean Government.

What is needed is a new system distinctly separated from the existing commercial banking system and designed for the specific purpose of encouraging and increasing savings on the one hand and to provide for the construction and financing of housing primarily on the other.

I must strongly recommend that a new banking system or system of banks, under government supervision and regulation, be formed in the Private Sector as opposed to the Government Sector. They should have a clear and distinct name such as "The Savers and Home-Owners Bank" so that they stand out in the public eye as to their nature and purpose. These banks should not be exactly similar to the insurance savings and loan of the U. S., but they should be stock corporations with the broadest powers to raise capital through the issuance of stocks, bonds, debenture, but with a major emphasis on savings capital.

Initially, this would require legislation allowing private individuals or corporations to form and operate these private savings and housing banks such as the "Pusan Savings Bank" or "Seoul Home-owners Bank" etc.

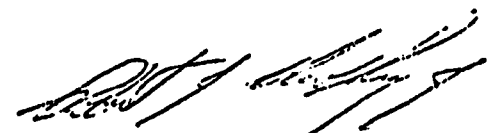
Secondly, there should be a government agency whose sole function is to regulate and supervise these private banks in the public interest and to define the type of risk; type of loans they may undertake in housing or related fields; their accounting procedures; reserves surplus and net worth requirements, etc. This government agency should also be a banker's bank. It should act as a credit window for the private savings banks raising money in the capital market and making it available for housing to the private banks, either for investment for new home or to stabilize the savings capital of the private banks in the event that they should have an out-flow of savings, especially during periods of very tight money.

I am convinced that the average Korean, given the assurance of a safe, secure and privately owned depository, with which they can identify, could be motivated to save perhaps even at a slightly lower rate than current market rates, particularly if there is the promise of ultimately obtaining their own home within their affordability over a period of years. In this connection, there should be another government agency which acts purely and simply as an insurance corporation. This would not be at government expense but at the expense of the private banks whereby they would be required to pay an annual insurance premium in relation to their savings capital, which would be funded and make it possible for the government to assure every savings depositor that his deposits were insured and therefore secure regardless of the success or failure of an individual private savings bank. I am further convinced that there are many private individuals and corporations who would welcome the opportunity to form a savings bank for the specific purpose of developing housing and could be extremely efficient at it. It is our experience that the middle income group can save, wish

to save, and will save particularly since they represent the largest market for financed housing.

As for the Housing Bank - it seems logical that the new system could be implemented through them and their existing 30 locations - but I think it might be difficult for them to change radically and quickly in their attitudes, habits, character and/or stripes. However, I recommend that the Housing Bank be adapted to the new system, that their branches and main office banking operations be offered for purchase to the public ^{private} sector and that government relinquish their position. The high administrative personnel of the Korea Housing Bank might then become designated government agency to supervise, regulate, and provide credit for the "Savers and Home-owners" private banks.

It is our conclusion that this type of system which encourages savings and facilitates homeownership, particularly for the middle income group, has worked extremely well for very many years in many countries stretching from Europe to Australia. Finally, we consider the environment very favorable for the introduction of such a system in Korea.



Robert J. Murphy, Jr.
June 10, 1971

INSTITUTION INTERVIEWED: Sogang University, Seoul, Korea

REPRESENTATIVE: Luke Jinchang Im, Associate Professor
of Economics

DATE OF INTERVIEW: June 7, 1971

BY: Carlos Ayerbe, FCH

Mr. Jimchang spoke on the housing cooperative movement in Korea and pointed out that:

1. There is not at the moment a legal structure for the operation of housing cooperatives in the country. The Ministry of Construction is in the process of submitting a Housing Cooperative Bill to the cabinet meeting and subsequently to the Parliament. The bill provides for the establishment of housing co-op regulations in Korea. This bill has the backing of the government but has been resisted by the Korean Housing Bank and the Korean Housing Corporation. Professor Jinchang estimates that the bill has a 50-50 chance of passing through the Parliament. It will probably take all of the remainder of this year for the ensuing legal steps leading to the final approval of the bill.
2. Some of the features of the bill:
 - a) Provides for individual title and single mortgage type of home ownership.
 - b) Gives legal entity (personeria juridica) to housing coops.
 - c) Membership for those without housing only.
 - d) Establishes five people as a minimum number of members to constitute a housing coop.
 - e) No property tax levied on members for 3 to 5 years.
 - f) No acquisition tax for members for 3 to 5 years.
 - g) No sales land tax to sellers of land to coops.
 - h) Gives priority to the coops for the purchase of government-owned land.

- i) Gives coops priority for securing loans from the Korean Housing Bank at 20-year terms for land acquisition.
- j) Gives priority to coops for the purchase of construction materials from the Korean Housing Corporation at below-market prices.

3. Valorization of Real Estate

Mr. Jinchang pointed out that real estate increases in value about 30% annually on the average. This is an approximate figure and is related to medium-cost housing located in acceptable neighborhoods. The rate of inflation is about 20% per year, although the government figures indicate a lower rate (about 10% per year).

4. Property Taxes

The city government has a property tax and urban improvement tax which is levied on housing. The appraisal office (tax assessor) of the city reviews the value of real estate once a year. Tax is based on such appraisal.

REPORT ON KOREA HOUSING BANK

1.0 General Observations

The Korea Housing Bank (KHB) has been established and operates like a commercial bank with a special interest in housing. It is similar in structure and, we believe, outlook to the other special-interest government-controlled commercial banks.

The team's general observations were that the Bank was adequately organized and had the technical know-how to make and service loans, but that what was needed in Korea was a new housing finance system, not just a better organized commercial bank.

Specific comments on KHB operations, therefore, are designed to encourage operations and an outlook compatible with the overall recommendations for the proposed new system.

1.1 The McMurray-Schwulst Recommendations

In 1967 Consultants Joseph P. McMurray and Earl B. Schwulst made a basic analysis of the desired KHB operations and program, and McMurray returned for a follow-up report in 1968.

Their recommendations may generally be considered to fall into three categories:

- a) Recommendations to AID
- b) Recommendations to ROK
- c) Recommendations to KHB

In general it may be said that recommendations to ROK and KHB have been more generally implemented than those to AID.

KHB staff is aware of these basic AID policy recommendations and prepared two reports on their implementation prior to arrival of the Team. (Copy attached.) A review of these recommendations and of the Bank's comments in the light of the Team's investigations leads one to the general comment that KHB has been faithful in implementing these recommendations where it was in its interest as a

commercial bank to do so.

The Bank has been less successful in carrying out those relatively modest recommendations relating to the attraction of the kinds of funds - government subsidies excepted- suitable for relending as long-term mortgages.

1.2 General Accounting

In the context of its regular operations we feel there are a number of accounting changes which, if made, would enable KHB-- and potential participants from the private sector whose involvement the Team recommends should be encouraged-- more properly to analyze its own situation.

For example, the Bank does not appear clearly to distinguish in its own thinking as well as in its own accounting between short and long term loans. (It lumps together housing construction and rehabilitation as one program, thereby including construction loans to public sponsors, the mortgages these loans become, and its miniscule two-year renovation loan program.)

Similarly, KHB does not appear to differentiate between the cost of operations and the cost of capital. We feel it might be helpful if KHB drew its balance sheet in such a fashion as to identify net operating income prior to deduction of interest costs paid to savings or creditors.

We further suggest that KHB develop more meaningful analyses of operating expense ratios, which also would be extremely useful in the development of private participation in home financing as recommended by the Team.

KHB carries income from the ROK subsidy, from sale of assets and from the lottery program designed to finance one of its subsidized loan program as non-operating items. It would seem that at the very least the last of these is more an operational item.

KHB

Reserves, while apparently acceptable in light of the Korean Commercial Banking Code, are substantially lower than good practices would indicate desirable for a housing finance institution. These totaled \$403,000 in 1970, as against \$43.5 million in time deposits; and \$91.7 million in loans (of which \$75.5 million were long-term mortgage loans.)

1.3 Source of Long-Term Funds

KHB's future program for promoting funds for the construction of housing for low and moderate income groups depends on the availability of long-term credit. Unfortunately, the Bank appears to be relying increasingly on subsidized ROK loans.

At the present there are four major sources of long-term funding for KHB home mortgage programs:

- a) Government subsidy
- b) Lottery
- c) Savings
- d) Loan amortization

1.3.1 Subsidy

The Government subsidy is balanced off by the publicly sponsored housing programs. Although KHB anticipates increased borrowings from ROK in 1971, borrowings during the next Five Year Plan(1972-76) are programmed at a much reduced rate.

To compensate, KHB's main attention has been directed towards USAID, either the HG program or what it euphemistically has termed long-term "borrowing from foreign investors" of \$10 million a year for the next five years at market interest rates with a five-year grace period.

It is the Team's feeling that the HG program should be carried without subsidy. As a matter of policy any subsidy involved in housing should be limited to much lower income groups than those currently benefiting from KHB loans.

3
KHB

1.3.2 Lottery

One cannot suggest lotteries as a major source of funding. As a matter of policy, the lottery program would probably be much more useful if conducted in conjunction with savings promotion campaigns, as suggested in the McMurray-Schwulst recommendations.

Use of the lottery and isolation of its proceeds in a special limited-class loan program, is a near-classic example of KHB response to the letter but not the spirit of AID recommendations.

1.3.3 Savings

KHB has programmed a 10% increase in housing installment savings in 1971 over that programmed in 1970; and has programmed a further three-fold to six-fold increase during the period of the Third Five Year Plan(1972-76). In point of fact housing installment deposits in 1970 were only two-thirds of the amount programmed, and the outstanding balance had actually decreased during the first four months of 1971, according to data presented the Team.

The effective interest rate of this program is 12 3/8% and participation appears limited to the minimum necessary to be eligible for a mortgage. It would appear that at the very least a more attractive interest rate will be necessary in connection with any more generalized and flexible savings program.

Another aspect involves advertising and promotion. KHB's expenditures in this area represent a much smaller percentage of total operating revenue than is accepted practice in the U.S., whereas in view of Korean conditions a higher percentage would be indicated. But in addition to spending more, KHB must develop a much more energetic and imaginative campaign; and this should be supported by ROK sanction, encouragement, and clear and repeated statements of ROK policies and goals.

KHB

-5-

1.3.4 Loan Amortization

One of the follow-up McMurray recommendations, made in 1968, was that KHB cut back its term from 15 to 10 or 12 years. The Bank, instead, found it necessary to increase the term to 20 years.

There is no question but that increasing the term reduces monthly payments substantially, and the Team initiated its study with a bias in favor of long-term, high ratio loans in order to extend home ownership possibilities to the maximum number of families. However, under the present circumstances the Bank's program does not reach the lower-income families among the regularly employed, and this approach does not seem feasible. Given the peculiarities of the Korean capital market it may well be necessary for KHB seriously to analyze the potentials of a program offering loans at higher interest rates and for shorter terms.

First step might well be an analysis of its existing mortgages to determine just what level of monthly payments mortgagers can carry at 25% of their current income.

Given the high rate of turnover in the real estate market and of assumption of KHB mortgages, it should be possible for the Bank to renegotiate the majority of its current portfolio within the next 3-5 years. If the term of these mortgages is reduced while still keeping monthly payments within 25% of income it should be possible substantially to increase the resources available for relending as a result of this more rapid amortization.

2.0 Purpose and Basic Organization

2.1 Purpose

*Given
book
available*

The Korea Housing Bank (KHB) was organized in 1967 with the assistance of AID to promote funds for the construction of housing for low and moderate income groups and to insure the efficient supply and management of funds for housing construction.

2.2 Organization

2.2.1 Government Participation

KHB is a public corporation under the supervision of the Minister of Finance. By statute ROK must subscribe more than half its total capital; the balance is to be sought in the private sector. At the time of the Team's visit ROK-subscribed capital totaled \$15.1 million, provided interest-free. A total of \$4 million in the form of two-year bonds bearing interest rates of from 21.8-24% had been subscribed by the so-called private sector (Korea National Bank, five commercial banks, and 17 life insurance companies)--the majority by the other government controlled banks.

✓ ROK also guarantees full redemption and interest payments for housing debentures issued by KHB and subsidizes KHB's long-term mortgage program.

2.2.2 Staffing

KHB's chief executive officer - or Governor - is appointed by the Minister of Finance with the concurrence of the Minister of Construction. The Governor is chairman of the Board of Directors, which includes six other government appointees and three private stockholder representatives.

Under the Governor is a Vice-Governor and four Directors. These have general supervision over the Bank's 11 departments:

- Savings Promotion
- Loan Management
- Securities
- Banking
- Technical Services
- Secretariat
- Personnel
- Business
- General Services
- Audit
- Planning and Research

Attached is the Bank's Organization Chart.

In 1970 KHB employed 330 persons in its head office and 791 in 29 branches and sub-branches.

2.2.3 Branches

In addition to its Head Office in Seoul, KHB operates 24 branches and 5 sub-branches. In Seoul are 11 branches and all five sub-branches. There are three branches in Pusan (the country's second largest city), two in Taegu (third largest city), and eight others in various centers with populations of more than 100,000. Seven of the country's nine provinces, thus, have at least one branch. Branches were to be opened for the remaining two provinces, but this could not be carried out as planned in 1970.

Branches have authority to accept deposits and make loans. Their loan quota is established monthly by the central office, based on the availability of resources and KHB overall policy.

Distribution of KHB Housing Loan Portfolio as of 12/31/70

<u>Province or City</u>	<u>Number of Branches</u>	<u>Total Loan Portfolio</u>
Seoul	11 branches 5 sub-branches	\$53,990,000
Pusan	3	8,987,000
Kyongsi	2	4,007,000
Kangwon	1	1,593,000
North Chungchong	-	373,000
South Chungchong	1	2,917,000
North Cholla	1	1,620,000
South Cholla	1	3,293,000
North Kyongsang	1	2,493,000
South Kyongsang	2	2,067,000
Cheju	-	200,000

2.2.4 Growth

KHB assets at the end of 1967 totalled \$25.5 million. Growth since that time is indicated by the following (dollars based on the exchange rate at the end of that year):

	<u>GROWTH OF KHB</u>		
	<u>1968</u>	<u>1969</u>	<u>1970</u>
Total Assets	\$54,987,000	\$87,430,000	\$117,288,240
Total Loans	\$45,671,000	\$72,599,000	\$ 91,735,000
Long-Term Housing Loans	\$39,120,000	\$61,282,000	\$ 75,515,000
Total Deposits	\$11,802,000	\$36,770,000	\$ 57,620,000

Appears substantial

3.0 Sources of Funds

KHB receives lendable funds from deposits, from the sale of housing bonds, from government loans, from the sale of its own stock, and from a lottery. It accepts both demand and time deposits. In the latter category are special savings plans, participation in which is required of all mortgagors.

	<u>KHB Sources of Funds</u> (000)		
	<u>1968</u>	<u>1969</u>	<u>1970</u>
Demand Deposits	\$ 5,276	\$ 12,234	\$ 14,166
Time Deposits	3,132	18,360	36,352
✓ Housing Installment Savings	<u>3,394</u>	<u>6,176</u>	<u>7,102</u>
Sub-total Deposits	\$ 11,802	\$ 36,770	\$ 57,620
✓ Housing Debentures	13,300	20,000	26,500
Government Loans	5,286	7,072	9,732
KHB Stock	18,036	18,793	18,500
Lottery	<u>---</u>	<u>269</u>	<u>827</u>
Total	\$ 48,424	\$ 82,904	\$ 113,179

(The above dollar amounts are calculated on the basis of the exchange rate in that year).

Interest rates on these funds vary tremendously, from 1.8% on passbook savings to an effective rate after discounting of 33.37% for three-year Housing Debentures.

3.1 Time Deposits

KHB accepts numerous types of time deposits bearing interest rates of from 1.8% to 22.8% per year, the wide variation in rates being more a function of ROK policy than of market forces.

Passbook Savings	1.0% per year
Notice Deposits (requiring 30 days notice before withdrawal)	5% per year
Time Deposits	
3 month	1% per month
6 month	1.5% per month
1-2 years	1.9% per month
National Savings Assoc. deposits	22.8% per year

Time deposits with the bank have increased steadily in the last three years: \$3.1 million in 1968, \$12.2 million in 1969, \$36.6 million as of the end of 1970. Of this last amount \$7.9 million consisted of deposits with less than 12 months to run, not an abnormal percentage.

A substantial percentage of the time deposits are made by other government-controlled banks as a way of transferring resources into housing in accordance with ROK policy.

3.2 Housing Installment Savings

These are two types of savings programs designed to attract future home owners. A depositor contracts to receive a specified savings amount after making regular monthly deposits for a specified period of time. At the end of the contract period, which may be 12, 18 or 24 months, the specified contract savings amount is credited automatically as an offset against the depositor's outstanding mortgage loan balance.

The required monthly deposits per ₩ 10,000 contract savings amount are ₩ 786 for the 12 month program, ₩ 508 for 18 months, and ₩ 370 for 24 months. This represents the equivalent of 12-3/8% interest.

The participant is eligible for his loan after six months regular participation.

In its Class A Program KHB attempted to add incentives to savers. The loan for which a saver was eligible was based on how long and how much he was willing to save. Savers for 12 months were entitled to borrow an additional amount equal to their savings balance, savers for 18 months one and a half times, savers for 24 months two and one half times.

KHB also built in an interest rate differential : that portion of the loan to be repaid before completion of the savings contract carried an interest rate of 20%; loan amortization after completion of the 12-, 18- or 24-month loan contract was at an interest rate of 10%.

In the Class B program savers are eligible for loans irrespective of the length or amount of their savings contract. The interest rate of 14% on the mortgages is somewhat higher than the 10% offered under the Class A Program.

Inasmuch as Koreans are attracted to the program because of the housing loans offered rather than for its savings features, they much prefer the straight-forward "Class B" program even at the slightly higher interest rate. As of April 30, 1971, a total of 27,692 subscribers were paying into the Class B program, of whom 24, 729 already had received their loans.

During 1970 KHB attracted less than \$1 million through this program, increasing total housing installment savings from \$6.2 to \$7.1 million. This was only two-thirds of the amount budgeted, and the Bank's program for even increased housing installment savings in 1971 appears optimistic at best. (As a matter of fact, a special KHB tabulation prepared for the Team as of April 30, 1971, showed a net drop in Housing Installment Savings, to \$6,814,000.)

9 Housing Debentures

One of KHB's most successful programs involves issuance of short-term (one to three year) government-guaranteed, negotiable housing debentures. Introduced in June, 1968, in an attempt to induce the general public into owning bonds and debentures, the Bank sold two and one-half times more than programmed during 1970.

The debentures are available in both large and small denominations and are eligible for sale on the Korea Stock Exchange.

Face interest rates ranged in 1970 from 16.8 - 24%, depending on term. They have been issued at discounts varying from 16 - 25% depending on term and time of issue, so that they yield a higher interest income than time deposits or other forms of deposits for comparable periods.

In 1971 the effective rates of interest after discounting were 27.88% for maturities of one year, 31.76% for two years, and 36.37% for three years.

The bonds also may be cashed before maturity, after a short waiting period, and still earn a very competitive interest.

In an attempt to attract small savers KHB also has issued its housing bonds in denominations of ~~₩~~ 500 to 5,000 (\$1.60 to \$16). By the end of 1970 sales in these small denominations totaled almost \$3.3 million. KHB expects that small denomination sales will total 11% of its greatly expanded 1971 program. However, this amount--\$2.7million-- will barely cover redemptions of the small denomination bonds.

KHB programmed sales of \$21.6 million large denomination bonds in 1971, which after redemptions due that year, will net an increase in savings of about of \$8.8 million.

Proceeds from the debentures are used for the Bank's short-term loan operations, and do not contribute directly to housing low and moderate income families. The effective interest rates, given the discounts, are substantially higher than the interest rates charged on the short-term loan operations, which in turn must be discounted.

3.4 Government Loans

ROK makes loans to KHB at concessional 2% rates with interest payments deferred until 1973 in the case of ROK funds, until 1978 for the AID counterpart funds.

The loans totalled as follows:

	<u>loan amount</u>	<u>total loan</u>
1968:	\$1,786,000 (ROK) 3,500,000 (AID)	\$5,286,000
1969:	1,786,000	7,072,000
1970:	2,667,000	9,732,000

These loans are for the specific purpose of relending at 8% interest to public sponsors of housing projects.

3.4.1 Administration of AID counterpart funds

As a contribution to the Bank's program AID made available some \$3.5 million (1 billion Won) in counterpart funds for the purpose of financing multiple-family housing construction by public agencies (Korea Housing Corporation and municipalities).

Ninety-five percent of the funds were committed during 1968, the first year of the project agreement, although the actual transfer of funds from ROK to KHB took place during October and November of that year. The balance was utilized in 1969.

According to KHB's 1968 and 1969 Reports on Audit, only 37% of the counterpart ban funds were used for apartments, as stipulated in the loan agreement. Of the balance, 27.5% was used for construction of single-family homes, 15% for disaster housing and 20% for site preparation.

This was corrected by accounting entries in April, 1971, making the appropriate transfers as between counterpart and non-counterpart funds.

The 1970 Report on Audit notes that this was possible because KHB has invested \$8.4 million (2.5 billion Won) of non-counterpart funds in apartment mortgages. This matter is still under investigation by AID.

According to its original reporting KHB allocated about \$700,000 of the counterpart funds to apartment construction in Seoul. AID meanwhile discovered that counterpart funds had been advanced to KHC to finance construction of a multi-million dollar upper-income rental complex for foreigners residing in Seoul. AID ordered KHC to stop construction and to reimburse the counterpart fund for the monies incorrectly used. KHC did shut down the job, but in the absence of alternate funding is able neither to continue construction nor to reimburse the counterpart account.

According to the Loan Agreement KHB was to submit reports to ROK and the following to the AID Mission:

1. Project reports identifying location, design, community facilities, estimated construction costs, financial responsibility of the contractor and sponsor(s).
2. Annual complete financial status report.
3. Annual operational program.

Reports were made to ROK but not to AID. The 1970 Report on Audit notes that KHB will submit these in the future.

AID also wrote in February, 1971, requesting ROK views and suggestions on the various matters in the Reports on Audit. As of the time the Team left Korea, no response had been received by the Mission.

KHB's use of these counterpart funds and its failure to properly report or to respond to inquiries have given rise to much adverse criticism by the Mission personnel involved and reflect poorly on the Bank's competence to carry out contractual obligations.

3.5 Lottery

KHB runs an annual lottery to raise funds for a low-interest rate program of home loans to disabled veterans and war widows. In 1970 \$610,000 was loaned on lottery proceeds of \$1,096,000. The 1971 budget allocation provides for 38% of the proceeds to be loaned out; 50% is budgeted for prizes, 12% for expenses.

4.0 Disposition of Funds

KHB loans are available in seven general categories. Two involve subsidized interest-rate, long-term mortgage programs. Five are relatively short-term loans at market interest rates, which could be made by any commercial bank.

The following table indicates the development of the Bank's loan portfolio. (Dollar amounts are calculated on the exchange rate in that year.)

<u>KHB Loan Portfolio (000)</u>			
	<u>1968</u>	<u>1969</u>	<u>1970</u>
Housing Loans			
Individual Mortgages	\$39,120	\$61,282	\$75,515
Construction Loans	<u>6,551</u>	<u>7,612</u>	<u>6,054</u>
Sub-total Housing	\$45,671	\$68,894	\$81,569
General Non-Housing	<u>---</u>	<u>\$ 3,705</u>	<u>\$10,166</u>
Total	\$45,671	\$72,599	\$91,735

Interest rates on individual mortgages ranges from 4 to 22%. Housing construction loans are made at rates of 18 to 24%, regular commercial loans at 18.8 to 26%.

In its normal procedure KHB does not differentiate its loan programs by term, but rather by purpose, i.e. "Housing" vs. "Non-Housing". Within the "Housing" classification the distinction between construction loans (what KHB terms working capital loans) and individual mortgages (which KHB identifies as "end user loans") does not completely parallel that between short and long-term.

We have reclassified KHB loan programs in the following presentation in order separately to describe those programs involving long-term mortgages, even though our classification does not completely agree with that of KHB.

4.1 Long-Term Housing Loans

4.1.1 Construction of a housing unit. These loans totaled \$16.5 million in 1970, representing almost two-thirds of KHB's activity that year. KHB's activity that year. KHB's long-term holdings have traditionally represented from 83% to 85% of its total loan portfolio.

Public Sector: Loans to the Korea Housing Corporation (KHC) and to municipalities totaled \$2.7 million in 1970 - \$1.2 million to the Korea Housing Corporation for 1,000 apartment units and 20 free-standing homes in Seoul; \$1.5 million to various municipalities throughout the country for 1,944 units. Public sector outstanding mortgage loans totaled \$14.1 million or 18% of the Bank's outstanding long-term housing portfolio in 1970.

The loans are for 20 years at a (subsidized) interest rate of 8%. However, this low interest rate is possible only as long as borrowings from ROK at 2% are available. When these funds are exhausted, KHB charges 18%. The Bank reported to the Team that outstanding mortgage loans originated through KHC by the end of 1970 totaled \$8.3 million, of which \$6 million are at 8% and \$2.3 million at 18%.

Calculations made by the Team would indicate that the interest advantage to KHB between 2% and 8% more or less balances off the loss for that portion of these loans for which KHB charges 18% but must use funds obtained at an even higher rate of interest.

KHB regulations permit loans to public organizations without limitations as to ratio of loan to value. In practice the limitations on individual loans apply:

- up to 80% of appraised value of construction only (with a maximum loan of \$2,150) in the large cities and provincial capitals;
- up to 70% of appraised value (maximum \$1,960) elsewhere.

In view of the maximum loan KHB will make, and in view of the cost of land, which must be acquired prior to applying for the loan, and of housing construction, KHB loans in effect represent only 20-30% of the value of the house and land.

Private Sector: Loans in the private sector represented the bulk of KHB's 1970 activity totaling \$13.8 million for 6,072 units (5,625 single-family homes and 447 apartments).

KHB 1970 Loan Activity in the Private Sector

<u>Borrowers</u>	<u>No. Units</u>	<u>Loan Value</u>
Individual Borrowers	4,858	\$11,000,000
Groups of Individuals	679	1,500,000
Contractors for homes	98	170,000
for apartments	<u>447</u>	<u>1,170,000</u>
TOTAL	6,072	\$13,840,000

✓ As of the end of 1970 KHB outstanding mortgage loans in the private sector totaled \$63.5 million, of which \$43.6 (or 70%) was loaned in Seoul.

The term of the loans is 20 years. Participation in a savings program is
a condition precedent to borrowing. There are two programs offered, at different interest rates.

By far the largest portion of the portfolio is loaned at 14% provided the subscriber signs up for a pre-scheduled loan repayment program and maintains his monthly payments regularly for at least six months. (The so-called Class B program).

Under the Class A Program the loan carries an interest rate of 10% for that portion of the amortization beyond the contract saving period. If the loan were made prior to expiration of the Savings contract it carried 20% interest for that period.

Koreans, preferring quicker availability of loan funds, greatly prefer the Class B loans, by which they can borrow the maximum with a minimum of delay. At the end of 1969, participation in the two programs was as follows:

Class B - 14%		\$38,500,000
Class A		
10%	\$1,900,000	
20%	<u>6,186,000</u>	
Sub-Total Class A		<u>8,086,000</u>
Total		\$46,586,000

KHB amortizes housing installment loans at a constant monthly payment for the term of the loan despite application of the contract savings account to reduce the loan principal, thereby obtaining the equivalent of a discount.

4.1.2 Housing Lottery Loans - 25-year, 4% loans to disabled veterans and war widows, through the Office of Veterans. KHB loaned \$610,000 on 252 homes under this program in 1970, two-thirds of the amount programmed.

4.2 Short-Term Loans

Generally speaking, KHB must discount its short term loans in order to bring up their effective interest rate to about 30%-- a point where it approximates the cost of money to KHB. Another practice, generally used in the business, is to permit short-term loans to run delinquent so that interest is collected at the penalty rate and even to set up conditions so that penalty interest falls due before the term expires. Interest rate penalties are assessed at an additional 50% of the face rate.

4.2.1 Renovation. KHB makes 20% two-year loans for the renovation of existing homes. The program, which KHB carries in its own data as part of its overall housing construction program, has been miniscule - \$40,000 on 154 units in 1970.

4.2.2 Purchase of Newly built Housing Unit. Except in the case of refinancing a long-term loan to a public sponsor or a contractor, these are five-year loans at 22% interest. KHB's 1970 activity totaled \$400,000 and involved 209 units.

4.2.3 Housing Site Development. Loans to developers of sites exceeding 12,000 M² of up to 80% of appraised value for two years. Interest rate to public sponsors is 18%, to private sponsors 24%. In 1970, \$1.9 million was loaned for this purpose, almost three times the amount programmed, but representing less than 8% of the Bank's activity that year.

4.2.4 Production of Construction Materials. Loans to producers of building materials for moderately-priced housing provided the materials are of better quality and cheaper than otherwise available are available at up to 50% of appraised value of the facilities or materials involved, with a maximum of \$100,000. Two types of loans are possible; for the installation of equipment or facilities the term is 5 years, interest rate 15%. If the loan is to provide operational funds, the term is 2 years, interest rate 24%. Only \$13,000 was loaned for this purpose in 1970.

4.2.5 Commercial loans. The Bank was authorized in 1969 to use up to 16% of its total savings for commercial loans at prevailing commercial loan terms and rates--i.e. 22% and up. Volume in 1970 was \$6 million, 50% over the anticipated amount and almost one-quarter of the Bank's activity in that year. Outstanding commercial loans totaled 11.1% of KHB's total portfolio at the end of 1970, a substantial increase over the 5.1% they represented at the end of 1969. ~~This increase was chiefly at the expense of the short-term housing loans.~~

5.0 General Operations

5.1 Profit and Loss

During its first three years the Bank has operated at a deficit. This deficit is made up by various ROK subsidies in the form of non-interest bearing stock purchases, 2% concessional loans (including \$3.5 million on AID counterpart funds), and by an annual operating subsidy.

The following table indicates the development of operations during its first three full years of operation, according to the Reports of Audit for the years involved.

KHB Operating Results, 1968-70 (000)

Revenue	\$3,546	\$ 9,274	\$13,077
Expenses (including payment of interest)	<u>3,906</u>	<u>10,353</u>	<u>14,598</u>
Deficit	-360 (10%)	-1,079 (17.5%)	-1,523 (11.7%)
ROK subsidy	520	1,034	864
other non-operating gains (primarily sale of lottery tickets)	<u>22</u>	<u>268</u>	<u>952</u>
Net Profit after Subsidy*	\$ 182 (5%)	\$ 223 (2.4%)	\$ 293 (2 1/4%)
Deduction for under-estimate of Depreciation*	<u>25</u>	<u>24</u>	<u>100</u>
Corrected Net	\$ 157 (4.3%)	\$ 199 (2.1%)	\$ 193 (1.5%)

*Under Korean auditing practice underestimation of depreciation is permitted "when it is considered necessary in the operating results." The correction has been added by the Team.

As is to be expected with a new agency, the ratio of operating expenses to gross income, including ROK subsidy, has been quite high, more than 50% during its first full year of operations. This was reduced to 34% in 1969 and to 27% in 1970, which although is still high by U.S. standards, is encouraging.

Salaries represented 19% of gross income in 1969, 17% in 1970, an acceptable ratio. Office expenses in both years were less than 1%. Advertising represented 2.2% in 1969, 1.2% in 1970, less than would be recommended in the U.S.

Interestingly enough, for a bank that loans at interest rates that are generally considered to be less than those paid on deposits, throughout its history KHB's income from interest has continually been more than its expenses-- by about \$2.4 million in each 1969 and 1970.

This results primarily from the concessional interest rates paid on ROK loans, and from the discounts, fees and various other techniques utilized by KHB to increase the effective interest rates of its loans.

Schedule of Interest Received and Paid (???)

	<u>1969</u>	<u>1970</u>
Interest Received		
Loans	\$8,335	\$11,074
Deposits with other banks	471	364
Other	416	717
Total	<u>\$9,152</u>	<u>\$12,958</u>
Interest Paid		
Deposits	\$2,337	\$ 4,461
Housing Deposits	548	916
Credit Control account	39	22
Borrowings	167	162
Housing Debentures	3,713	1,987
Other	8	13
Total	<u>\$6,785</u>	<u>\$17,529</u>
Difference	+\$2,367	+\$ 2,377

5.2 Collection and Delinquencies

Although KHB loan regulations permit qualification of buyers to spend up to 25% of their income on housing, in actual practice KHB holds this percentage to less than 20% - a practice facilitated by the maximum loan limitations and very high equity requirements.

Because of this very conservative practice, although delinquencies on all loan programs have averages 2 to 2.5% during the last three years, the delinquency rate for home owners involved in both publicly and privately sponsored programs has been less - 0.6% in 1968.

Overall Delinquency Rate

	<u>1968</u>	<u>1969</u>	<u>1970</u>
Total	2.3%	2.1%	2.5%
less than 3 months	1.1%	0.9%	1.6%
3-6 months	0.1%	0.5%	
6-12 months	0.2%	0.1%	0.4%
more than 1 year	0.9%	0.4%	0.5%

The following tabulation based on the 1969 Report of Audit indicates loan portfolios and delinquencies by interest rate. These have been identified with the Bank's various programs. In connection with the relatively high delinquency rate on construction and commercial loans, the financial advantage to the Bank of collecting the 50% interest penalty should not be overlooked.

Loans Outstanding and Delinquencies, 1969

<u>Interest Rate</u>	<u>Program</u>	<u>Loan Total</u>	<u>Delinquencies</u>	<u>Percent Delinquent</u>
<u>Long-Term Housing Loans</u>				
8%	Public Sponsorship	5,230,000	111,300	2.1%
10%	Class A Installment Savings Loans	1,900,000	33,500	1.8%
14%	Class B Loans	38,500,000	8,100	0.02%
18%	Publicly sponsored housing and site development	1,070,000	---	
20%	Class A Installment Savings Loans	<u>6,186,000</u>	<u>140,000</u>	<u>2.2%</u>
	Sub-total Housing Loans	\$50,886,000	\$292,800	0.6%
<u>Other loan programs</u>				
4, 6, & 9%	Old KRB programs	\$10,612,500	\$90,400	0.9%
15%	<u>Production of materials</u>	110,000	11,700	10.6%
22%	Construction financing	464,000	---	
24%	Construction, site development, etc.	7,231,000	874,000	12.1%
26%	Non-housing commercial	1,229,000	77,000	6.3%
more than 26%	<u>Non-housing commercial</u>	<u>102,000</u>	<u>56,800</u>	<u>55.6%</u>
	Sub-total other loans	\$19,748,500	\$1,109,900	5.6%

When KHB was organized it assumed the housing portfolio of the Korea Reconstruction Bank, which included substantial delinquencies and interest due totaling \$606,000. KHB reduced interest due to \$155,000 during its first full year of operations and collections have continued, albeit at a less spectacular rate, so that the total interest due on these old accounts totaled \$67,000 as of the end of 1970.

KHB also has established provision for an annual assessment of 0.2% of the loan amount (except for loans to KHC) as a reserve for delinquencies. This reserve totaled \$253,000 by the end of 1970, which the bank Audit stated was sufficient for its purpose in light of the security held.

KH B. to
reply to

H/A
16/11/68

RECOMMENDATIONS BY EARL B. SCHWULST April 16, 1968

The KHB initiate a bond program;

- and a. Sale of W 1 - 2½ billion primarily to commercial banks. Bonds negotiable with maturities up to 3 years at the market rate. Permit bonds to be eligible as required reserves for banks at a low interest rate.

Actions; The bank has issued, ever since the recommendation, 1,4 billion won worth bonds to commercial banks with maturity of 2 years and interest rates among 24 - 21,8 per-cent per annum. An outstanding balance as of end of 1969 is the figure stated in the above.

- b. Sale W 2 - 2½ billion of negotiable bonds in the open market in the U.S.

Actions; There had been good and best try to float bonds in the U.S. open market ever since the recommendation, but as you should very clearly be known that there had been no provisions for the Extended Risk Guaranty Program applicable to the Korea, it has been very impractical to both of us and prospective buyers to get together for such issue. Since the Program is now to be very well include the country, I hope at this stage, from near future, it would be worth to continue our ever given try for the floatation of housing bonds in the US. Open Market, with and under good and mutual assistance and cooperation between us and US governmental economic or private prospective investors in Korea.

- c. Sale of W 500 million in short term negotiable notes to the public at market interest rates. Proceeds invested only in construction loans.

Actions; The bank has issued about 5 million won bonds to the general public with maturities of one to three months and has given different interest rates with the longer maturity the higher interest rate. All of these are been fully redeemed. The short term paper was issued 1) to general attractions to the public for bond investment 2) broaden the market of bonds in public who had been far away from the commercial bond market and 3) to induce them for the purchase of a longer term bond. We thereafter has been issuing bonds with maturities over one year and up to two year.

- d. Design savings bonds in small denominations with various features to attract small savers.

Actions; The Bank has issued bonds in denominations of 500 won to 1,000 won with one year maturity. These bonds are paid interest rate which is little higher than time deposit for giving public more attraction for longer investment namely 21.8% to the face value and salable with advance discount of interest amount at the time of purchase, it therefore gives higher yield to the buyer. Total sale as of the end of 1970 amounts 998 million won.

2. Increase taxes on land and especially on vacant land. Impose a capital gain tax on sale of real estate. *** Refer to the Dr. McMurray's Recommendation, July 15, 1958.

3. Promote acquisition of land for building sites by cooperatives.

Actions; The Ministry of Construction is undertaking the legislative action for a New Act for this purpose, and assume the Act will be enacted in new Congress.

4. AID find and finance an advisor to the KHB in savings management, savings promotion and mortgage lending.

Actions; This is the recommendation to the AID which I consider Mr. Rufus A. Long should have taken action in coordination and cooperation with the Bank long time ago, and wonder what has been done to this.

MM/Unan

KHB



THE KOREA HOUSING BANK

43-6 KWAN CHEDOL DONG, JONG RO KUL, SEOUL
REPUBLIC OF KOREA

~~CONFIDENTIAL~~

CABLE ADDRESS: KOREHBK, SEOUL

Recommendations by Dr. Joseph F. McMurray, July 15, 1968

*Also recommended
by Schuster*

1. KHB finance only multi-family dwelling units of not less than 50 units - five story walk-up units- and should require good design and supervise the land planning and landscaping. No single units should be financed.

Checklist
Status: The Bank extends loans to multi-family unit constructors with privileged low interest rates. This has been done for the purpose of providing incentive to private construction firms to promote such dwelling units, beside of the loans extended to local governments as well as to the Korea Housing Corporation.

2. Inaugurate a program of taxation on the increase in the value of land. Devise other land and capital gains taxes to discourage speculation in land.

Checklist
Status: An Act has been enacted since 1968 for such purpose being recommended to control the unreasonable price rise through land speculations in major cities especially. This act may be called as "Speculation Control Act on Real Estates".

3. Set up promotional activities to induce savings and encourage broad national interest in housing program. Such efforts to include a lottery and housing cooperative techniques. AID is to facilitate the latter by financing a full-time consultant on cooperative housing for at least one year.

Checklist
Status: The bank is provided with a privilege to offer depositors to the housing installment savings program for an income tax deduction privilege; eq; 10% of the assessable income tax is deductible for the income level of about 30,000 won per month. Thus the bank advertises it to any potential depositors of house builders in future; such as employees of the EUSA.

Lotteries have been in continued issue in every month since 1969. Addition to this and away from any other banks' savings activities, the Bank issues in roll bonds of such nature as redeemable by cash, land or dwelling unit as each case of bond so deems more attractive to the general public.

As to the full-time consultant, AID in Korea has not taken any official and formal action as yet, and may remain for future action.

4. Develop a building supply industry to fabricate or manufacture standardized products and to prefabricate items that can be more economically made in a plant rather than at a site.

Status: For this particular purpose, the bank is equipped with loans for construction material productions and development for economic, in addition to the standardization and prefabrications, the resulting status up-to-date of this particular loans are as enclosed. It is to be noted that the standardization of construction material would require more longer time to be fully utilized by each home builder, and the prefabrication is to take more longer time for realization, since the demand and density of the housing market in comparison the production cost is to be very carefully concluded at this stage for the market.



5. AID increase its financial assistance to the KHB in the form of counterpart funds as much as 10 US million dollars. AID should encourage the extension of the extended risk guarantee program to South Korea ~~XXXXXXXXXXXX~~

Status: It has been very sincerely hoped, but unfortunately, has not yet been materialized. Continued and strenuous efforts derived from the enthusiastic and keen attention of AID appropriate official as to this particular point should bring fruitful result in early future day for the both; counterpart loan to the Bank and the extension of Extended Risk Guarantee Program to the Bank for any investors so recommended through and in cooperation with the AID or any other US official authority.

6. To pay the market interest rate on deposits:

Status: The bank pays exactly identical interest rates to every deposits as any other bank does, since the interest rates are all been completely same through out the banks in the country as this has been regulated by the agreement of interests and its rates among the Banks.

7. To rely on longer term type deposits and bonds as a source of loan funds.

Status: Major stress has being been devoted on ¹time deposits and longer term maturity bonds. The risk guarantee program is also be much desirable and should be very effective on this purpose for having long term funds for long-term financing for housing with low interest rates charged.

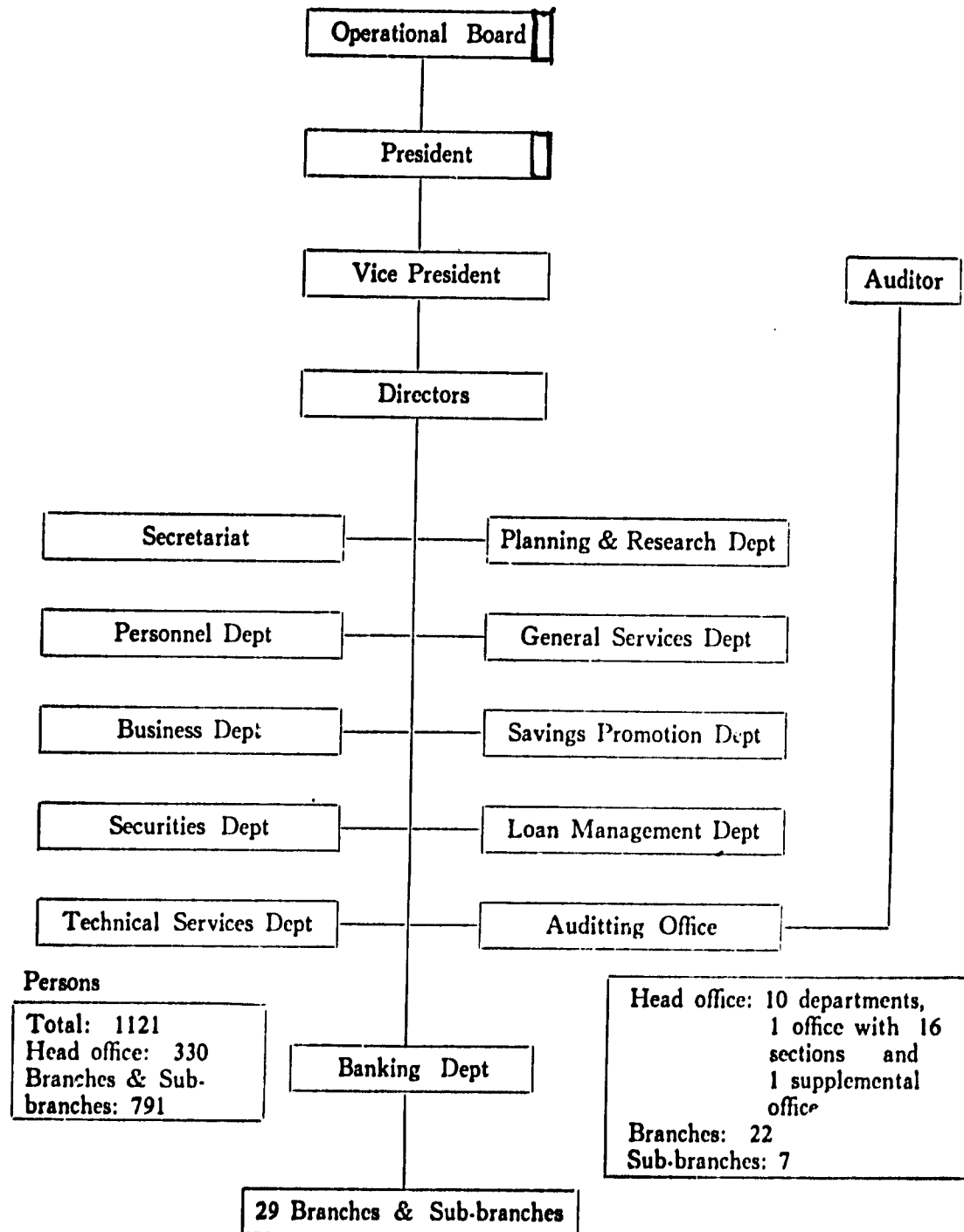
Housing Bonds Issuance and Refund Program in 1971

as of Dec 31, 1970

(in million won)

Classification	Balance Oct. 1, 1914 Oct. 1, 1915 Oct. 1, 1916 Oct. 1, 1917 Oct. 1, 1918 Oct. 1, 1919 Oct. 1, 1920 Oct. 1, 1921 Oct. 1, 1922 Oct. 1, 1923 Oct. 1, 1924 Oct. 1, 1925 Oct. 1, 1926 Oct. 1, 1927 Oct. 1, 1928 Oct. 1, 1929 Oct. 1, 1930 Oct. 1, 1931 Oct. 1, 1932 Oct. 1, 1933 Oct. 1, 1934 Oct. 1, 1935 Oct. 1, 1936 Oct. 1, 1937 Oct. 1, 1938 Oct. 1, 1939 Oct. 1, 1940 Oct. 1, 1941 Oct. 1, 1942 Oct. 1, 1943 Oct. 1, 1944 Oct. 1, 1945 Oct. 1, 1946 Oct. 1, 1947 Oct. 1, 1948 Oct. 1, 1949 Oct. 1, 1950 Oct. 1, 1951 Oct. 1, 1952 Oct. 1, 1953 Oct. 1, 1954 Oct. 1, 1955 Oct. 1, 1956 Oct. 1, 1957 Oct. 1, 1958 Oct. 1, 1959 Oct. 1, 1960 Oct. 1, 1961 Oct. 1, 1962 Oct. 1, 1963 Oct. 1, 1964 Oct. 1, 1965 Oct. 1, 1966 Oct. 1, 1967 Oct. 1, 1968 Oct. 1, 1969 Oct. 1, 1970 Oct. 1, 1971 Oct. 1, 1972 Oct. 1, 1973 Oct. 1, 1974 Oct. 1, 1975 Oct. 1, 1976 Oct. 1, 1977 Oct. 1, 1978 Oct. 1, 1979 Oct. 1, 1980 Oct. 1, 1981 Oct. 1, 1982 Oct. 1, 1983 Oct. 1, 1984 Oct. 1, 1985 Oct. 1, 1986 Oct. 1, 1987 Oct. 1, 1988 Oct. 1, 1989 Oct. 1, 1990 Oct. 1, 1991 Oct. 1, 1992 Oct. 1, 1993 Oct. 1, 1994 Oct. 1, 1995 Oct. 1, 1996 Oct. 1, 1997 Oct. 1, 1998 Oct. 1, 1999 Oct. 1, 2000 Oct. 1, 2001 Oct. 1, 2002 Oct. 1, 2003 Oct. 1, 2004 Oct. 1, 2005 Oct. 1, 2006 Oct. 1, 2007 Oct. 1, 2008 Oct. 1, 2009 Oct. 1, 2010 Oct. 1, 2011 Oct. 1, 2012 Oct. 1, 2013 Oct. 1, 2014 Oct. 1, 2015 Oct. 1, 2016 Oct. 1, 2017 Oct. 1, 2018 Oct. 1, 2019 Oct. 1, 2020 Oct. 1, 2021 Oct. 1, 2022 Oct. 1, 2023 Oct. 1, 2024 Oct. 1, 2025 Oct. 1, 2026 Oct. 1, 2027 Oct. 1, 2028 Oct. 1, 2029 Oct. 1, 2030 Oct. 1, 2031 Oct. 1, 2032 Oct. 1, 2033 Oct. 1, 2034 Oct. 1, 2035 Oct. 1, 2036 Oct. 1, 2037 Oct. 1, 2038 Oct. 1, 2039 Oct. 1, 2040 Oct. 1, 2041 Oct. 1, 2042 Oct. 1, 2043 Oct. 1, 2044 Oct. 1, 2045 Oct. 1, 2046 Oct. 1, 2047 Oct. 1, 2048 Oct. 1, 2049 Oct. 1, 2050 Oct. 1, 2051 Oct. 1, 2052 Oct. 1, 2053 Oct. 1, 2054 Oct. 1, 2055 Oct. 1, 2056 Oct. 1, 2057 Oct. 1, 2058 Oct. 1, 2059 Oct. 1, 2060 Oct. 1, 2061 Oct. 1, 2062 Oct. 1, 2063 Oct. 1, 2064 Oct. 1, 2065 Oct. 1, 2066 Oct. 1, 2067 Oct. 1, 2068 Oct. 1, 2069 Oct. 1, 2070 Oct. 1, 2071 Oct. 1, 2072 Oct. 1, 2073 Oct. 1, 2074 Oct. 1, 2075 Oct. 1, 2076 Oct. 1, 2077 Oct. 1, 2078 Oct. 1, 2079 Oct. 1, 2080 Oct. 1, 2081 Oct. 1, 2082 Oct. 1, 2083 Oct. 1, 2084 Oct. 1, 2085 Oct. 1, 2086 Oct. 1, 2087 Oct. 1, 2088 Oct. 1, 2089 Oct. 1, 2090 Oct. 1, 2091 Oct. 1, 2092 Oct. 1, 2093 Oct. 1, 2094 Oct. 1, 2095 Oct. 1, 2096 Oct. 1, 2097 Oct. 1, 2098 Oct. 1, 2099 Oct. 1, 2100	Monthly												Total
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep	Oct.	Nov.	Dec.	
General Bonds	210	610	705	910	410	705	710	610	505	610	610	805	8,000	
Small Denominations		100	100	100	100	100	100	100	100	100	100		1,000	
Land and Dwellings Secured		500	500	500	500	500	500	500	500	500	500		5,500	
Total	210	1,210	1,305	1,510	1,010	1,305	1,310	1,210	1,105	1,210	1,210	805	14,000	
General Bonds	7	805	10	1,146	31	533	430	322	249	265	0	23	4,724	
Small Denominations				14	24	25	106	203	157	449	20		908	
Total	7	805	10	1,160	35	558	536	525	406	714	20	23	5,632	
Balance	8,095	8,895	9,303	10,946	11,071	12,320	13,041	13,094	13,791	14,115	14,614	15,804	16,371	

Organization Chart



Financial Statement
As of December 31, 1970
(With Comparative Figures of 1969)

	1970	1969
	(In thousand won)	
ASSETS:		
Cash	4,571,515	2,373,323
Loans:		
Housing loans	24,470,663	19,979,138
General loans other than housing	3,050,715	1,074,437
Total Loans	27,521,378	21,053,575
Call loans	676,000	—
Fixed assets in service	1,046,531	994,652
Less: Accumulated depreciation	(61,845)	(38,689)
Net Fixed Assets	984,686	955,963
Deferred charges and interest paid in advance	730,948	433,969
Other assets	701,944	538,106
TOTAL ASSETS	35,186,471	25,354,936
LIABILITIES:		
Deposits received	17,285,922	10,663,345
Housing deventures	8,095,410	5,797,480
Borrowings from government	2,800,000	2,000,0000
Accrued interest and prereceived interest	652,465	418,684
Other liabilities	594,071	880,541
Total liabilities	29,427,868	19,760,050
STOCKHOLDERS' EQUITY:		
Capital Stock; Authorized 10,000,000 shares of par value W1,000 each: Issued 5,550,000 shares	5,550,000	5,450,000
Retained earnings:		
Appropriated	120,835	79,811
Unappropriated earned surplus	87,768	65,075
Total retained earnings	208,603	144,886
Total stockholders' equity	5,758,603	5,594,886
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	35,186,471	25,354,936